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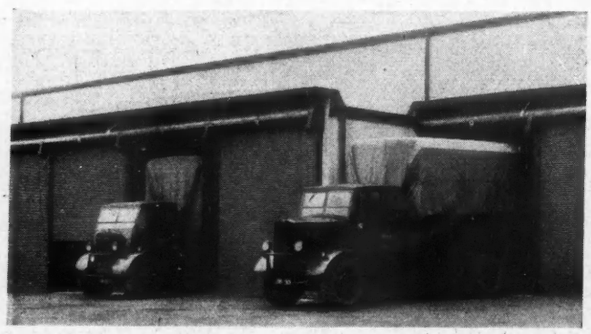

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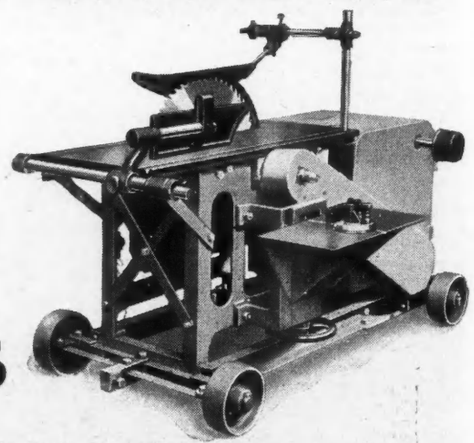

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VOL. CLIX DECEMBER 20 1940 No. 5107

WAR DAMAGE INSURANCE

AT long last, after nearly sixteen months of war, there is now before Parliament the War Damage Bill. Part of it is to be compulsory in its working. Throughout the building and engineering industries, alike by architects, engineers and contractors, it will be gratefully welcomed. Its provisions are most complicated; but, no doubt, before it passes into law, these will be expressed more explicitly. To this useful end Parliament will have before it the carefully considered criticisms of many experienced statisticians, actuaries and others familiar with the sphere in which the Bill will operate. The task for everyone has been rendered more difficult because in the end the Bill had to be hurriedly drafted.

The Bill, in brief, provides for (1) the compulsory insurance of all property, in order to spread the cost of repairing war damage amongst all property owners. Covered are buildings and other immovable property, private houses and factories, fixed industrial plant and machinery: also movable business assets such as movable plant and machinery, office and shop equipment; (2) the voluntary insurance of furniture, clothing, etc., and personal possessions. Further certain amendments are included to existing statutes relating to the War Risks Insurance Scheme for commodities.

In respect to (1) the Government is to take over the usual functions of the insurance companies, and for this immovable property there is to be set up a War Damage Commission. This Commission is to be assisted by the Valuation Office of the Inland Revenue Department —an office which first functioned in 1910.

The premium paid is to be five annual instalments each equal to the sum of 2s. on every pound of the annual value (as assessed for income tax purposes) of the property, a method which will lead to unequal variations in different localities. The first period is as from September 3, 1939, to August 31, 1941—when there will, if necessary, be a review. That is, the Bill is to be retrospective. An allowance of 2½ per cent. interest is made if the payment of contributions is made in advance. The collection of contributions is to be in the hands of the Commissioners of Inland Revenue.

Buildings in which the Crown has a sole interest are exempted from the provisions of the Bill. Charities for the relief of poverty, the treatment of sickness, etc., or the advancement of religion will pay no contribution, while charities for the advancement of education, science or research will pay contributions at one-third of the full rate.

The new Bill works in conjunction with the Housing (Emergency Powers) and Essential Buildings and Plant Acts to enable compensation to be credited against any loan made by a Department under those Acts.

Full collection of the contributions is estimated at about £200,000,000 over the five years. The Government will, if found necessary, add up to a like sum, but takes power to increase the rate of contribution if the estimated aggregate contributions and other receipts fall short of half of the estimated payments of compensation during the risk period.

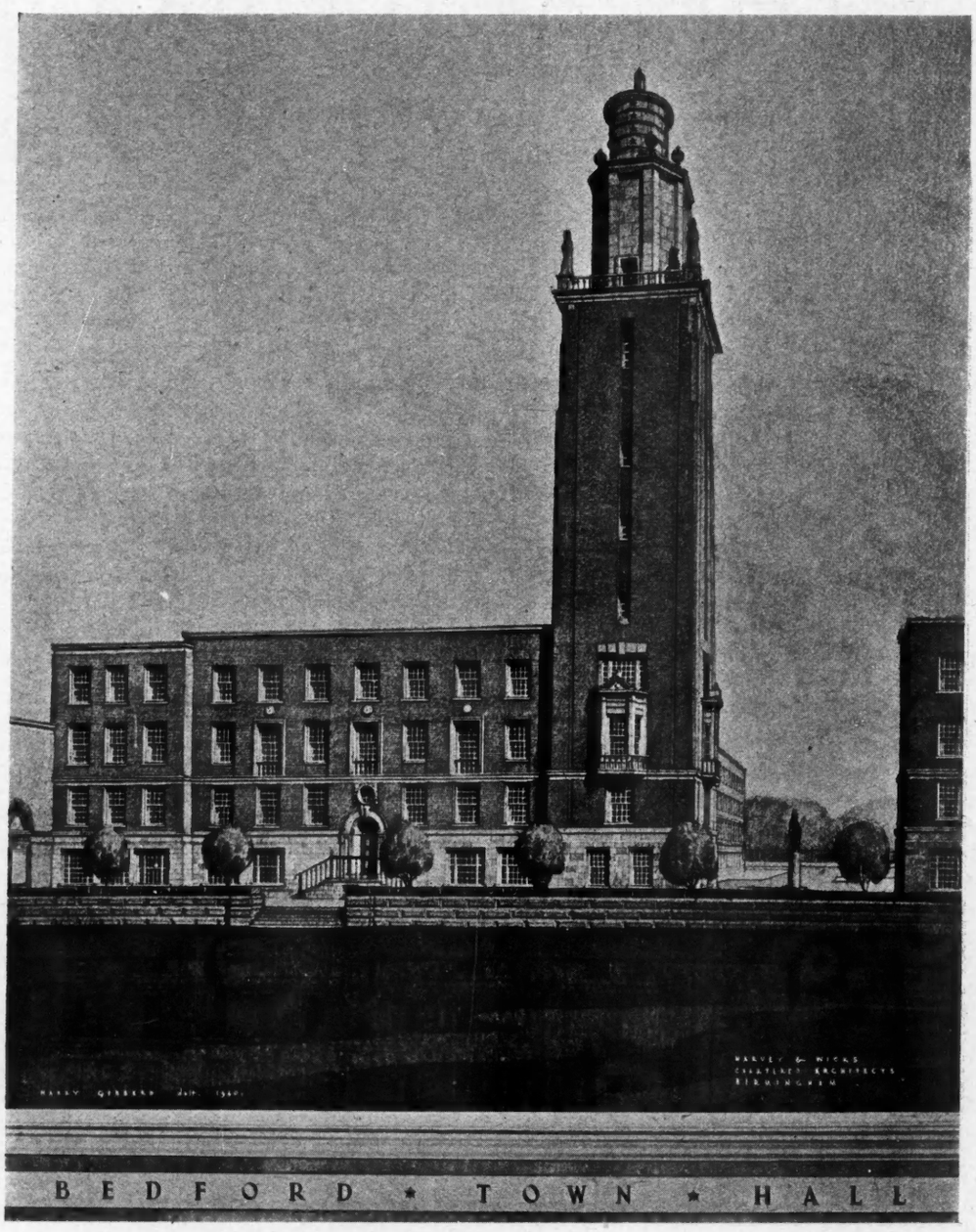
Compensation is to be one of two kinds, either "cost of works" payments or "value" payments. Broadly speaking, a "cost of works" payment for repairs to essential properties (subject to the reasonableness of both works and costs) will be paid generally at the time the works are done; value payments, when it is necessary in the national interest. Th at is, certain properties, however badly damaged, will be reinstated at once if of national importance; but beyond "first aid" repairs in the case of other properties, repair may be delayed indefinitely. The Commission has power to grant up to £500 to a person needing alternative accommodation. "Value" payments will be made at times in the case of a building where the cost of repair would exceed its eventual value; and interest on this value will accrue at 2½ per cent. from the date of damage to that of payment of compensation. Current prices on March 31, 1939, are still taken as the basis for compensation, although that basis has been much criticised by experts. It might be an unequal hardship for some householders to wait a long time for their value payment and the accruing interest.

The new "business" scheme for the insurance of goods and the "private chattels scheme" for the insurance of furniture and effects is to be administered by the Board of Trade, the premiums being collected and policies issued by the fire insurance offices and Lloyds underwriters.

It is suggested in the business scheme that insurance for property exceeding £1,000 in value should be compulsory; but voluntary under that value.

Under the "private chattels scheme" insurance is entirely voluntary. The maximum amount insurable is £1,500 plus £500 for a motor-car; or a motor-cycle.

In both the above schemes 30s. per cent. is the proposed premium. This figure is considered prohibitive; it could be considerably reduced in the voluntary scheme if it were made compulsory. Since all the schemes are only just about to start, no funds can accumulate, which suggests that for some time the schemes may have to be subsidised. We shall take further opportunities to review this complicated Bill during its passage through Parliament.



BEDFORD TOWN HALL COMPETITION:

Illustrated above is a perspective (by Mr. Harry Gibberd) of the winning design in the limited competition for a new Town Hall for Bedford. The successful architects are Messrs. Harvey and Wicks, whose competition drawings (together with Mr. Oswald Milne's winning design for the Bedford Shire Hall competition) are reproduced on pages 599—603.

NOTES AND NEWS

Destroyed Buildings.

BUILDINGS which have been damaged or destroyed by recent Nazi raids include the University Great Hall, St. Peter's Hospital, the Dutch House and Temple Church, Bristol. The Great Hall is little more than a heap of rubble, and St. Peter's Hospital (which is a half-timbered building) was also destroyed, as was the Temple Church, which is roofless and windowless, but whose leaning tower still stands. The old Crown Court at the Guildhall has also been destroyed, but the new Civil Court is undamaged. Birmingham Midland Institute has also suffered severely, but is still in use.

Another recent sufferer is Eton College, which has twice been bombed. Very little is left of Savile House, which was part of a row of picturesque houses at the corner of Weston's-yard, built in 1604 by Sir Henry Savile. The 250-year-old Upper School has also been hurt, but not irreparably. Minor damage has been done to other buildings, but the structure of the Chapel, Lupton's Tower and the Lower School is unharmed.

Coventry Cathedral: Extent of Damage.

ACCORDING to the Very Rev. R. T. Howard, Provost of Coventry, what is now left of the Cathedral (following the Nazi attack) are the encircling outer walls of all the guild chapels and the sanctuary in an unbroken line completely enclosing the ruins of the nave, chancel and side aisles. The walls of the five-sided apse are all standing, but the traceries are slightly damaged. The ruins of the nave arcade lie piled up in two long lines from west to east, so that one can walk from the west to the sanctuary almost unhindered. The tower and spire are blackened on the side where the volumes of smoke engulfed them for a night, but otherwise they are as strong as ever. All the ancient woodwork of stalls and screens has perished, but the high altar cross and candlesticks were saved, and all the Communion vessels.

Coventry Cathedral, begun in 1373, was completed in 1450.

Cement and Air-raid Shelters.

MEMBERS of the Cement Makers' Federation, we understand, have issued a writ against the Bishop of Birmingham (Dr. Barnes), following the speech which he made at Birmingham on November 30.

The Bishop was speaking at the opening of an exhibition arranged by the A.R.P. Co-ordinating Committee to present the case for bombproof shelters.

St. Paul's Cathedral Glass.

CANON ALEXANDER stated on Monday that the great west window of St. Paul's Cathedral had been seriously damaged, but though the window was capable of repair, he doubted whether it deserved it. It was a modern window, the product of Munich. It had the importance of size and position, but otherwise it could not be said to possess any special value or beauty. It was the only window in the Cathedral which so far had suffered any considerable damage. He suggested that here was a unique opportunity for some benefactor, whether society or individual, to present to St. Paul's, when the war was over, a new window as a memorial or a thank offering. The cost would probably not exceed £5,000.

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Leeds College of Art.

LEEDS College of Art has abandoned its usual custom of one large annual exhibition of the work of all departments (with the exception of the annual Architecture School exhibition) in favour of a number of smaller exhibitions illustrative of various sections of the College's activities. The first—devoted to dress design, fabric printing and illumination—was opened on December 11. The exhibition has been arranged by Mr. J. S. Allen, B.Arch., A.R.I.B.A., Head of the School of Architecture, and the architectural settings have added greatly to a display which has attracted industrialists and the public to view at first hand the work for which the College of Art is responsible.

Hampstead Civil Defence Committee.

MR. O. P. MILNE, F.R.I.B.A., has been elected Chairman of the Emergency Committee for Public Defence of Hampstead Borough Council. Mr. Milne has also been appointed as the Council's representative on the London Regional Council.

Professional Announcement.

MESSRS. HOGG AND KEAY (quantity surveyors) have recently opened a branch office at No. 27, Bridge-street, Leighton Buzzard, Bedfordshire, and will be pleased to receive copies of manufacturers' catalogues and price-lists. Telephone No.: Leighton Buzzard 3189.

IN 1915.

EXTRACT FROM *The Builder*, DECEMBER 10.

"ENTHUSIASM and imagination do much for all great movements, especially in their initial stages, and Professor Geddes might well be called the poet of town planning. . . . Like all those who see the outline of Utopia, he occasionally underrates the length of the road which leads to it and the difficulties which lie on the way to it, the greatest of which is the difficulty of inducing men to work for the same ends and purpose; but the vigour and force of the work will awaken interest and discussion where prosaic statements of fact would fail to produce results." From a review of Professor Patrick Geddes's "Cities in Evolution."

COMING EVENTS

Tuesday, December 31.—Housing Centre. Luncheon. Miss Amy Sayle on "Billeting War Workers." 1 p.m.

Tuesday January 7.—Institution of Structural Engineers (Scottish Branch). Seasional Meeting.

BEDFORD TOWN AND SHIRE HALLS

THE COMPETITIONS REVIEWED.

THE competitions now decided arose in part from the fact that Bedford has lately widened the Town Bridge which spans the River Ouse and forms the main entrance to the town. The authorities have envisaged a big town planning scheme, completing this improvement, by the proposal to build a Shire Hall at the bridge head. The site is a fine one, facing the High-street at the eastern end, while the river forms its southern boundary. The north side gives on to St. Paul's-square.

The scheme of improvement does not leave off here, for the Corporation have co-operated with the county authorities and have acquired a site for the new Town Hall on the western side of the square, while the southern end of their site also fronts the river. Each authority asked the same six well-known architects to send in plans for these buildings, but separate assessors were chosen to adjudicate. Mr H. V. Lanchester was the assessor for the Town Hall and Professor Adshead for the County Hall. Their awards, together with the winning designs, are given on pages 599 to 603.

It is, perhaps, a little unfortunate that under this system—if, as has happened, the plans of different architects should be chosen—the desirable relationship between the two buildings might be lacking. Point is given to this criticism by the fact that each winning design has provided for a tower on the river front. These, if built as designed, would form conflicting points of interest and would symbolise a spirit of competition between the two authorities which is doubtless non-existent. However, it is not too late to correct this, and no doubt the two authorities and their architects will co-operate so as to bring the two buildings into harmony.

The site for the Shire Hall is, as we have said, a fine one, and the winning design has well seized the opportunity that offered. The building will give an admirable introduction to Bedford as one enters the town from the south coming over the bridge. There is a quiet dignity in the lines and proportions of the river front, with its terraces and balconies, while the tower is well placed.

The elevations to St. Paul's-square are very simply treated, the main emphasis here being given to the façade of the Law Courts. The whole will form a quiet, restful background to the church, which must remain the central and dominating building in the Square. The main entrance is in the centre of the eastern end, which is set back from the line of the High-street. A forecourt is thus formed, which enhances the setting of the building and enables vehicles to approach without impeding the main flow of traffic. This entrance is set at the main floor level and is approached by a double flight of steps with balustrades.

The conditions suggested that certain portions of the present Shire Hall, such as the Law Courts and the Council Chamber, should, if possible, be embodied in the new scheme. The different floor levels of the old buildings made this a matter of complexity, but the winning design has achieved a unity in a very skilful manner. The parts of the building which have been retained have been refaced and married to the new without any extensive remodelling within, and in such a way that the resulting whole is interesting and convenient in plan and attractive in elevation, while it should be eminently workable from a practicable point of view.

Thomas Hardy's House for the Nation.

MISS KATHARINE HARDY, of Talbothays Lodge, near Dorchester, sister of the late Thomas Hardy, O.M., bequeathed Max Gate, formerly the residence of her brother, to the National Trust. Max Gate was designed by Hardy himself.

WAR-TIME BUILDING PRACTICE

By R. Cotterell Butler, A.R.I.B.A.

39.—SYNTHETICS FOR THE BUILDING INDUSTRY

PLASTICS.—IV. DESIGNING FOR PRODUCTION.

Without in any way suggesting that the work of those responsible for the technical production of plastics mouldings in this country, and elsewhere, is open to criticism on technical grounds, it must be said that the standard of design of the vast majority of plastics—and particularly those produced for the building industry—has been and continues to be disappointingly poor. This is all the more unfortunate since, from a technical point of view, the standard of workmanship and production has been correspondingly high.

One cannot, with reason, be dogmatic about each and every æsthetic consideration which may be involved in the production of articles in a new material, but to justify the criticism that much of the work produced in plastics has been æsthetically unsatisfying—to put it very mildly—only three factors need be cited :—

Most rational people are prepared to agree that " fake " or imitative art forms are inherently bad, since they are in essence insincere.

Similarly, the production of needlessly complicated forms unsuited to the nature of the material in which they are produced, although it may be said to exhibit extreme ingenuity, lacks honesty and simplicity.

Finally, so-called " good design " usually allows for the product to carry out its job satisfactorily.

The fact that so much plastics design has been imitative is due primarily to plastics being of enormous value as substitutes. The early designers for plastics were and still are all too frequently prone to consider design for plastics as a matter of getting satisfactorily in plastics the effects that had been possible in the material substituted. Hence the spate of art forms based on imitation !

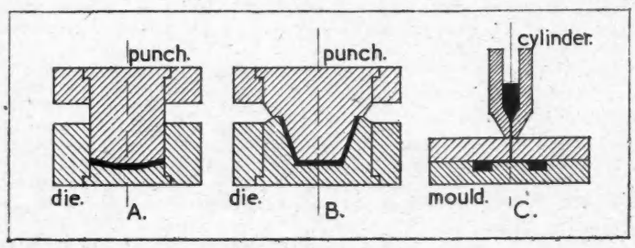


Fig. 1.—Sketches indicating the principles of :
A. Positive moulds.
B. Flash moulds.
C. Injection moulds.

The criticism that many objects produced in plastics have been needlessly ornamented and elaborated is probably due to the work of fundamentally bad designers. In addition to this, plastics being in many cases substitutes economically, these same bad designers inclined to try to produce " money's worth " by elaborate excrescences which could not even be called pattern.

This needless ornamentation frequently meant that the usefulness of the product was impaired.

We must hope that these criticisms will soon belong to the past. Unfortunately, they will continue to occur unless :—

(*a*) Designers responsible for production in plastics are *both* competent artists and persons who either are able to appreciate the nature of the material for which they are preparing designs or prepared to listen intelligently to the production engineer's advice on such matters.

(*b*) A general increase of appreciation of good design takes place in order that it will cease to be an economic proposition to produce for people with bad taste.

It is depressing to realise that the needless complication of many plastics products has meant great difficulties for the production engineer, has resulted in the expenditure of unnecessary effort, and been disadvantageous economically. Enrichment and pattern in moderation may satisfactorily and economically be obtained within the natural limits of production in plastics, but excessive ornamentation is both mechanically and economically unsatisfactory.

PRACTICAL CONSIDERATIONS CONNECTED WITH THE PRODUCTION OF PLASTICS MOULDINGS AND EXTRUSIONS, AND DIRECTLY AFFECTING THEIR DESIGN.

The following brief notes on the technique of moulding are intended to introduce the basic elements of the process in order that designers may appreciate the primary considerations which decide what may with ease be made in a plastic and what is either exceedingly difficult or even impossible. It should not be imagined that a cursory knowledge of the fundamental points involved qualifies anyone to dogmatise on what should or should not be done, but it may help recognition of some of the better-designed plastics articles which are slowly developing a market.

Again, if architects and others are to be fully aware of plastics, and to make use of the potentialities of the Industry, the sooner they acquire a knowledge of the basic principles controlling the production of mouldings, the earlier will they be able to see its potentialities and limitations.

MOULDING THERMOSETTING PLASTICS.

A plastics moulding usually is produced in one of two general types of mould, a flash mould, or a positive mould. In both the fabrication processes are similar.

The moulding powder containing the plastic resinoid in the " A " or unpolymerised stage is loaded into the die part of the mould, and pressure applied by the press *via* a punch. The positive type of mould is used for a number of technical reasons, but the only one with which we need be concerned here is that, when the die part of the mould is insufficiently large to hold the full charge of moulding powder, the positive type must usually be used. Incidentally, it is interesting to note that to speed-up loading powder into a mould in exactly the right quantity, the powder " shots " are whenever possible " pelleted," that is to say, the correct mass of moulding material for the object being made is compressed into pellets of suitable size for easy loading.

A flash mould is used wherever the die can hold the full charge of moulding material. The small surplus of material over after the object is formed " flashes out " at the meeting faces of the punch and die and the pressure practically cuts off this flash from the moulding. Considerable accuracy may be obtained with a mould of this type, since the punch comes to rest at a fixed level on the die which, provided the moulding operation is well managed to allow the flash to escape, is consistent ; the mouldings of consistent size are thus produced without difficulty.

The moulding cycle of producing a thermosetting resin moulding is therefore :—

LOADING THE MOULD WITH THE POWDER —> PRESSING THE PUNCH INTO THE DIE TO SHAPE THE MOULDING —> MAINTAINING THE PRESSURE UNTIL THE PLASTIC IS " CURED " —> WITHDRAWING THE PUNCH AND REMOVING THE MOULDING.

The curing is, of course, the time taken for all the resin to be converted from the "A" to the "B" stage. Since heat is required for this, the entire mould, punch, die and casing is maintained at an appropriate temperature, and to reduce the time of curing, the powder is often warmed on a hot-plate before use. (It must not, of course, be warmed so much that it begins to polymerise before it is put into the mould.)

In designing for production in thermosetting plastics, the above notes should have made certain important points clear. To enumerate these :—

(1) Since the plastics material has to be "cured" by heat-treatment, the rapidity with which this takes place and hence the speed with which many mouldings may be produced from the same press—one after another—will be dependent upon the thickness of the cross section of the moulding.

(2) In addition to this, great variations in thickness of cross section will mean variations in the extent of curing received by each part. Thus, for a given time, the thin parts might be over-cured before the thick parts were completely treated. As regular a section as possible is therefore desirable.

(3) In view of the fact that the moulding material has to be forced to shape in the die by the punch, long thin sections branching off from the main body of the moulding will not be good, since the plastics in being forced along may become partly cured, and tend to refuse to flow.

(4) The surface finish of a moulding produced in a properly made and polished mould will be so satisfactory as to require no further treatment.* Therefore, wherever possible the design of an object to be moulded in a plastic should be such that no machining after moulding is necessary, as the objects will be thus completely finished as soon as withdrawn from the mould.

(5) Since the punch must be withdrawn from the inside of the moulding, and the moulding must in turn be withdrawn from the die, undercuts and similar complications should be avoided whenever possible. Undercuts of extreme complication can and are often produced by arranging for dies and punches which have loose parts—removable after the moulding is cured. It will be realised that the need for such means not only very expensive moulds, but also increases the time of the moulding cycle. This latter is likely to increase the cost of a moulded product, since no reduction in the cost of a longer cycle is effected by an increase in the quantity of goods to be produced.

EXTRUSION MOULDING.

Questions of consistency of section, depth and similar considerations apply for the most part to extrusion processes, and are equally important. The time cycle of extrusion moulding is similar to other techniques for thermosetting plastics, and materials passing through heated dies, and being extruded only when fully cured. In building construction extrusion applies very naturally to the production of small sections of considerable length, ultimately to be built up or used as fillets or battens. Quite complex sections may be produced, but it is unlikely that building technique would demand a section which, capable of extrusion, would be either difficult or impossible for satisfactory economic production.

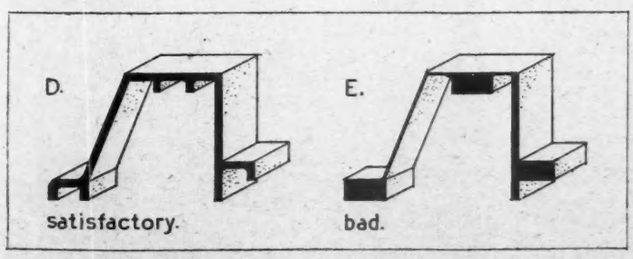


Fig. 2.—Comparison between suitable and unsuitable cross sections for plastics mouldings.

* A small "flash" may have to be trimmed off, but this is a simple and inexpensive matter with a well-designed mould.

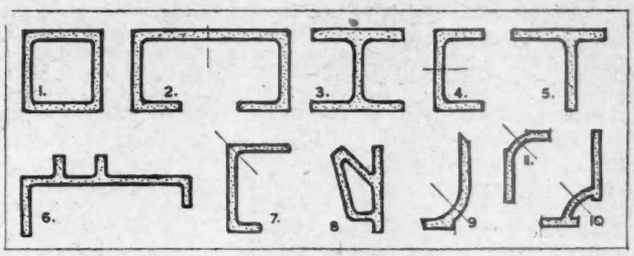


Fig. 3.—Sketches showing suitable sections for continuous runs of plastics produced by extrusion. 1 to 5, structural ; 6 and 7, semi-structural ; 8 to 11, "finishes."

MOULDING THERMOPLASTICS.

The production of a moulding from a thermoplastic may be carried out similarly to the process for thermosetting plastics described above. The important difference is that while the thermosetting plastics may be removed from the mould as soon as cured although quite hot (so hot that the operator must wear special gauntlets for handling), a thermoplastic pressing would collapse if removed hot, and even if considerably cooled it would be likely to warp. Therefore, instead of the thermoplastic moulding being cured, it has to be cooled before removed. Moulds for producing thermoplastics have therefore to be alternately heated and cooled, and this process, although admittedly difficult, is solved quite satisfactorily by means of steam heating and water cooling, and other similar methods.

Injection Moulding : Since thermoplastics may be maintained in the liquid state without polymerising (as do thermosetting materials), it has been found possible to produce mouldings in thermoplastics by injecting the liquid plastic into cool moulds, when the material cools rapidly, and the production cycle may be shortened.

The problem of injecting fluid material into a cavity by means of a ram involves, of course, many hydrostatic problems. These have been overcome, and vast quantities of the smaller plastic products are now produced by injection moulding. Generally speaking, most of the design considerations noted in connection with thermosetting plastics apply to the thermoplastics.

WORKING (MACHINING) PLASTICS.

In previous articles mention has been made of the technique of casting synthetic resin plastics in inexpensive moulds, after which they are machine-finished. A great advantage of moulded and extruded plastics is the fact that there may be no need for any finishing or polishing treatments after production. This advantage, as already noted, must be exploited to the full.

However, the use of auto- and capstan-lathes and other machine tools has made it economically possible for cast or rough moulded plastics to be machine finished, or even objects for special purposes machine-produced from rod, bar or slab materials.

Generally speaking, the architect or builder anxious to exploit plastics for building would be well advised to concentrate on the application of moulded products, and to endeavour to take full advantage of the finish and sections possible by the moulding techniques. It would seem that in this field the real economic advantages of plastics for building are to be found.

Mechanical parts to be manufactured from laminated block and slab materials do, of course, involve precision machining, but the engineer rather than the architect is most likely to be concerned with these aspects. The architect should remember, however, that many plastics do machine extremely well ; they may be sawn, screw-cut, turned, drilled and tapped, and in the realm of mechanics their applications are no less than elsewhere. Obviously the properties of high-efficiency plastics for mechanical purposes and the machining of them—although intensely interesting—cannot be said primarily to interest the building constructor, but when and as an interest in the full development of plastics for each and every building purpose is shown, these aspects must not be neglected.

(To be continued.)

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Facsimile Reconstruction of Old Buildings.

To the Editor of *The Builder*.

Sir,—In your issue of December 6 you report that in a recent letter to the Press, Professor A. E. Richardson has emphasised the need to employ scientific methods in making records of buildings of merit. You state that Professor Richardson adds:—

"Photogrammetric surveying applied to architecture, particularly to damaged buildings, would enable facsimile reconstructions to be made if desired. It is to be regretted that no such accurate records exist of Coventry Cathedral."

While readily admitting the great excellence of the late cathedral, I would at the same time suggest that a "facsimile reconstruction" would provide nothing more than a fake museum piece.

Coventry is fortunate in having a City Architect who is capable of taking, and willing to take, full advantage of the unique planning possibilities now arisen from the city's disaster.

Surely Professor Richardson is not suggesting that the new Coventry stoop to the copying of its old buildings? By all means let there be proper records made of the country's buildings, but at the same time let the present generation work out its own architectural expression.

Max Tetlow, Borough Architect.
Macclesfield.

"Building: Its Planned Development."

To the Editor of *The Builder*.

Sir,—In these days of evacuation and conflict, it is not always easy to get a glimpse of, or time to read, the professional Press. In glancing through the current issue of *The Builder* in the local public library, however, I came across the replies to Mr. Myerscough-Walker's previous article on the new Ministry, and the usual proverbial diatribe against the R.I.B.A. This time it finds very energetic expression in a letter from Miss Marjorie Tall.

Mr. Ansell is perfectly capable of defending himself should he deem it worth his while to do so against such an exhibition of bad taste and unfairness without any support from me. As far as democracy is concerned, one can only again remind Miss Tall, as well as others holding similar views, *that the composition and constitution of the R.I.B.A. are exactly what its members intend them to be, and if members are not satisfied they have only themselves to blame.* If they do not like the suppression of general meetings and elections and the so-called autocracy of the executive, they have their remedy under the Bye-laws.

Miss Tall should know that any expressed opinion of a public body is generally conveyed to the Press under the signature of the Hon. Secretary, who receives his authority and instructions from the council. Just because Mr. Ansell happens, at the moment, to be President of the R.I.B.A., there is no justification whatever to suppose that when he is expressing an opinion he is doing so in his official capacity or that his views necessarily represent those of the body over which he presides. Furthermore, he is fully entitled to give his views just as much as Miss Tall. Airing such discontent in the Press does not assist matters, and it would be more to the point if Miss Tall concentrated her energies to see how the present internal affairs and composition of the R.I.B.A. could be rectified to prepare the way for post-war conditions—a very important factor.

N. Martin-Kaye, F.R.I.B.A.
Mansfield, Notts.

A New Capital City?

To the Editor of *The Builder*.

Sir,—Referring to Mr. Stephen Wilkinson's idea for a new capital city published in your issue of November 22, a barrage across the Bristol Channel will be a national work of the future, and a planned civic and industrial region on both sides of the channel above the barrage would adjust the unbalanced effect which greater London has made on our industrial life.

The tidal control of this water would produce electricity for a great part of England and Wales, provide an extensive base for seaplanes, and good water-way communication between the different parts of the city. The existing docks would be improved and miles of new wharfage could easily be constructed.

London would remain the capital city, and, freed from the strangling ring of small industries, would maintain and increase its traditions and dignity. The new city, with many miles of controlled tidal water, could be planned to meet the national needs under special legislation covering the waterway and the land for some miles adjacent to the channel.

W. N. Ashwin.
West Quantoxhead,
Taunton.

SCHOOL NEWS

THE TECHNICAL COLLEGE, CARDIFF. THE WELSH SCHOOL OF ARCHITECTURE.

Annual Dance.

About 280 architects, students of architecture and their friends were present at the annual dance of the Welsh School of Architecture, which was held at the Technical College on Saturday, November 30. The assembly hall had been tastefully decorated, this work and the general organisation of the dance being in the hands of the School of Architecture Club Committee, the officers being Mr. W. J. Phillips, Chairman; Mr. G. A. Lynham, hon. secretary; Miss M. V. Morgan, hon. treasurer; while Mr. H. Gealy acted as M.C.

The spot prizes were awarded to the winners by Mr. W. S. Purchon, M.A., F.R.I.B.A., Head of the Welsh School of Architecture. Among others present were Principal J. C. Jones and Mrs. and Miss Jones; Messrs. N. J. Auckland, J. Selby Davies and L. J. Richards.

MANCHESTER MUNICIPAL SCHOOL OF ART: PRIZE AWARDS.

The Manchester Society of Architects present, each year, certain prizes which are open to competition to students of architecture. This year both the Senior and Junior Design prizes have been won by students of the Manchester Municipal School of Art, Architecture School. Their work is included in the Exhibition at the Society's headquarters at St. Mary's Parsonage.

The Senior Prize was awarded to Miss Doreen Boagey, a fifth-year student, for her design of a Military Institute.

The Junior Prize was won by Mr. K. H. Edmondson, a third-year student, for his design of a Cricket Pavilion.

Mr. Mark Goddard, a second-year student of the School, was awarded the second prize in the Junior competition.

SOCIETIES & INSTITUTIONS

I.A.A.S.

Annual Report.

The fifteenth annual report of the Incorporated Association of Architects and Surveyors, just issued, shows how the Association has "weathered the storm" during the first year of war, and also that it has increased both its membership and its assets.

At the beginning of this year the Council of the Association appointed a special committee charged with the duty of examining proposals and making recommendations for the reconstitution of the I.A.A.S. Council on broader lines and in order that the interests, both territorially and sectionally, of all members of the Association might be represented.

As a result of the committee's work, the draft of a new set of by-laws was drawn up and this, together with certain recommendations, were submitted and approved by an extraordinary general meeting of members of the I.A.A.S. held in London last week.

The scheme of reconstitution envisages a council composed of representatives of members resident in every part of the British Empire, whilst the United Kingdom is divided up into various constituencies.

The Council will be elected annually and each county or constituency will hold its own election. In addition, the salaried members and the junior members of the Association will hold separate elections for the purpose of electing their respective representatives.

To ensure continuity in the policy and management of the Association's affairs the Council will have power to elect six senior members of the Association to serve on the Council.

CHARTERED SURVEYORS' INSTITUTION.

Professional Examination, 1940: Prize-winners.

Following is the list of prize-winners at the Professional Examination, 1940, of the Chartered Surveyors' Institution:—

Penfold Gold Medal, Driver Prize, John Gilchrist Prize, Galsworthy Prize and Mellersh Prize, Robert Andrew Milligan, 6, Cranshaws-drive, Polmont, Stirlingshire; Wainwright Prize, William Hurst Rees, Bushey, Herts.; Crawter Prize, Lionel Palmer Layton, Malvern, Worcs.; Quantities Prize, John Addison Hitchcock, Ashtead, Surrey; Constructive and Working Drawings Prize, Richard James Matson, Kingsbury, N.W.9; Beadel Prize, Charles Williamson Bruce, Comrie, Perthshire; Institution Prize, James John Fotheringham Kemp, Stirling; Special Prize, David Elwyn Williams, Wallasey, Cheshire; Scottish Committee Prize, Norman Petrie, Dundee; Hyman Marks Prize, John Foster, Chryston, Lanarkshire; Julian Rogers Prize, John Philp Tweedale Thomson, Greenock, Scotland.

MANCHESTER SOCIETY OF ARCHITECTS.

Students' Prizes.

The following prizes have been awarded in competition to Student Members of the Manchester Society of Architects and affiliated societies. Except where otherwise mentioned all prize-winners are of Manchester University School of Architecture.

Senior Measured Drawings Prizes: 1, Bradshaw Gass Prize, C. W. Quysner; 2, Society's Prize, L. E. Sykes.

Junior Measured Drawings Prize: Society's Prize, F. S. Bolland.

Sketches Prize: Beaumont Prize, R. B. Turner.

Senior Design Prizes: 1, Society's Prize, Miss D. Boagey (School of Architecture, Municipal School of Art); 2, Woodhouse Bequest, C. W. Quysner; mention, Miss M. Elce.

Junior Design Prize: Society's Prize, K. H. Edmondson (School of Architecture, Municipal School of Art); mention, M. Goddard (School of Architecture, Municipal School of Art).

VIEW FROM SOUTH. *Below:* VIEW FROM EAST.

THE "WHEATSHEAF" HOTEL, BURTON JOYCE.

MR. T. CECIL HOWITT, D.S.O., F.R.I.B.A., ARCHITECT.

"WHEATSHEAF" HOTEL, BURTON JOYCE.

The village of Burton Joyce stands on the main Nottingham-Southwell-road, five miles north-west of the City in the valley of the River Trent. The inn site is situated within the precincts of the communal centre of the village.

The plan of the house is developed with large lounge hall and square bay recess, with smoke-room adjoining on the south-west side and lounge or refreshment-room to the north-east.

A large public bar with separate entrance and service commanding a small off-licence sale shop is planned to the west. The main service is given a central position in the plan, with counters and control to all units. To the rear of the building, kitchen quarters for licensee have been arranged.

The comfort of patrons has been given special attention, and, in addition to the usual central heating, the most up-to-date extract system has been introduced.

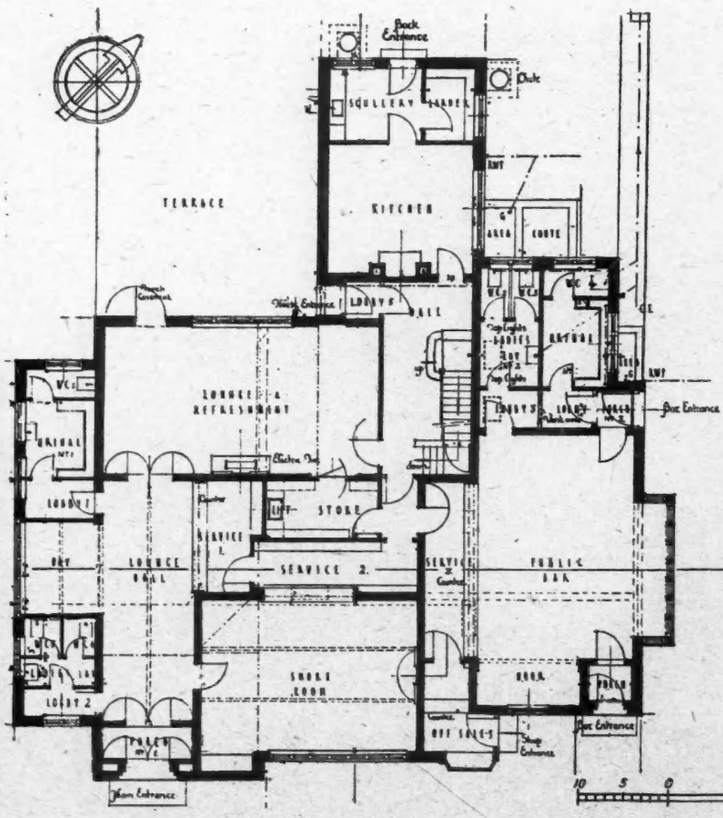
The first floor contains a large club-room, together with bedrooms and sitting-rooms for the tenant, and the basement has extensive cellarage, heating chamber, etc.

Steeply-pitched sweeping gables in brown tiles, with tall chimney stacks and stone-coloured brick wall faced with elm-boarded gables, and windows framed in broad silver-oak frames and leaded, constitute the external treatment.

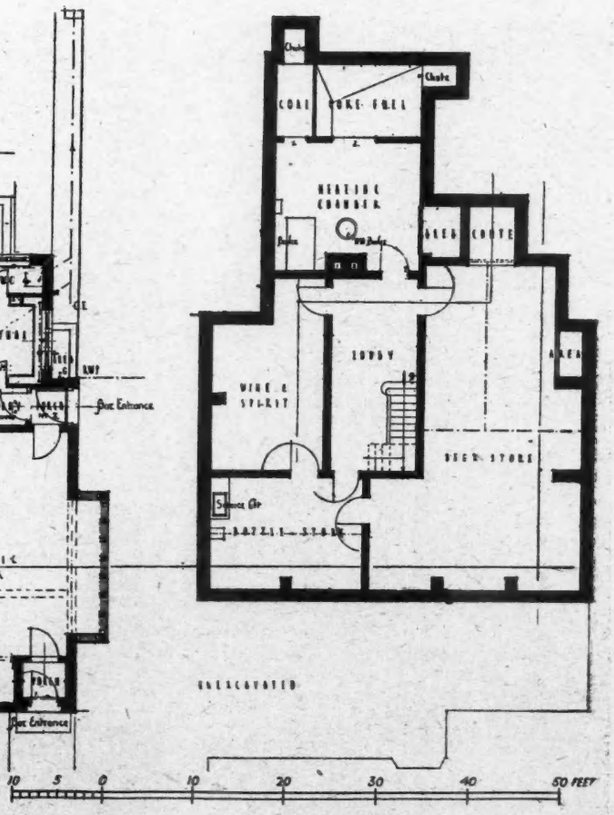
The general contractors were Messrs. John Cawley, Ltd., of Canal-street, Nottingham. Sub-contractors and suppliers engaged were : -

Nottingham Rock Asphalte Co., Nottingham, asphalt ; Williamson, Cliffe, Ltd., Stamford, brick and tiles ; Trent Concrete, Ltd., Colwick, cast stone ; John Booth & Sons (Bolton), Ltd., Bolton, steelwork ; Helical Bar & Engineering Co., Ltd., London, fireproof construction ; W. & A. Goulding, Ltd., Nottinghan, plumbing and glazing ; Fitchett & Woollacott, Ltd., Nottingham, woodblock flooring ; Cork Insulation & Asbestos Co., Ltd., London, cork flooring ; Korkoid Decorative Floors, Liverpool, "Korkoid" flooring ; Young, Austen & Young, Ltd., Nottingham, heating and ventilation ; Aga Heat, Ltd., London, cooker ; J. & S. Farr, Ltd., Nottingham, electrical work ; G.E.C., Ltd., London, and Cecil Ern & Co., Ltd., London, electric light fittings ; Doulton & Co., Ltd., London, sanitary fittings ; Lewis & Grundy, Ltd., Nottingham, door furniture ; Crittall Manufacturing Co., Ltd., Braintree, steel casements ; G. T. Rackstraw, Ltd., Worcester, specialist joinery and decorations ; T. B. & W. Cockayne, Ltd., Sheffield, furniture ; S. Peach & Sons, Ltd., Nottingham, curtains ; Carter & Co., Ltd., Poole, tiling ; Evans Lifts, Ltd., Leicester, lift ; Gent & Co., Ltd., Leicester, clocks ; H. H. Martyn & Co., Ltd., Cheltenham, signs ; Smart & Brown, Ltd., Nottingham, linoleum ; and Samuel Harvey, Nottingham, gardenwork and planting.

THE INN SIGN.



GROUND PLAN.

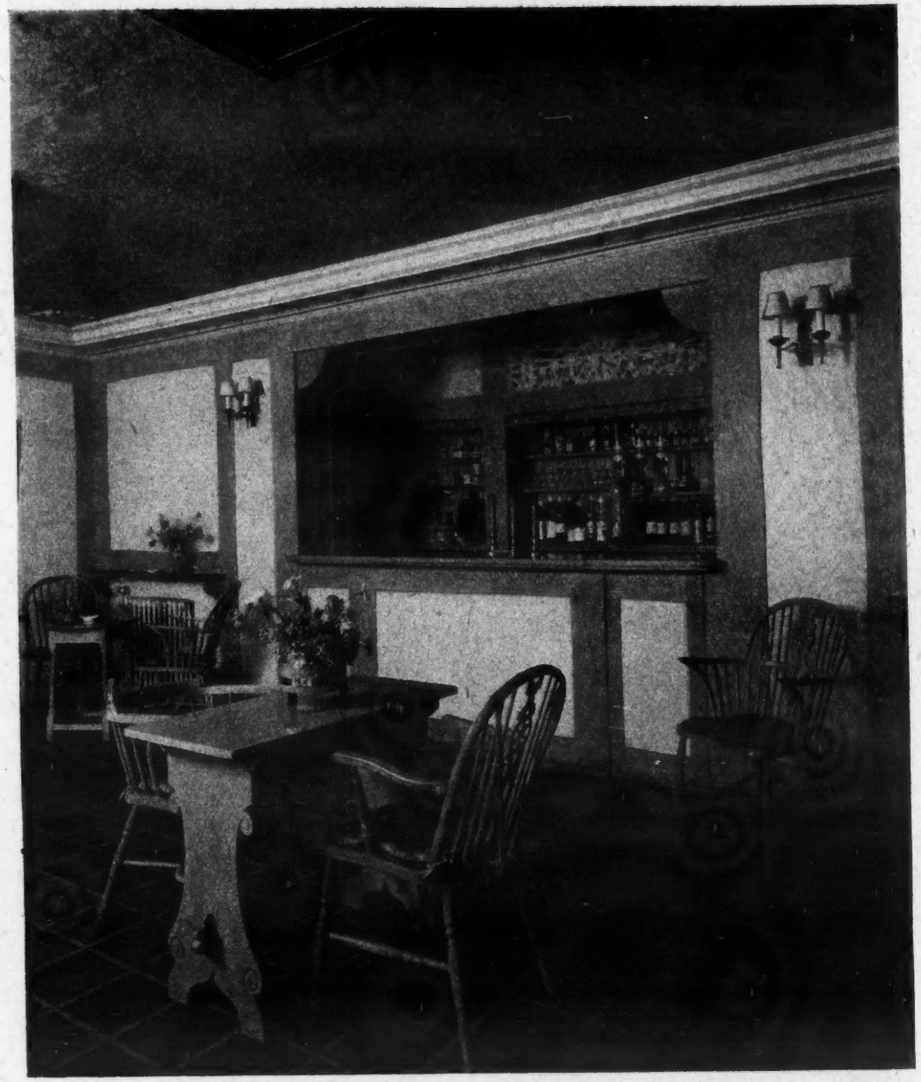


CELLAR PLAN.

LOUNGE AND REFRESHMENT ROOM. *Below:* THE PUBLIC BAR.

THE "WHEATSHEAF" HOTEL, BURTON JOYCE. MR. T. CECIL HOWITT, D.S.O., F.R.I.B.A., ARCHITECT.

THE LOUNGE HALL.



THE SMOKE ROOM.

THE "WHEATSHEAF" HOTEL, BURTON JOYCE. MR. T. CECIL HOWITT, D.S.O., F.R.I.B.A., ARCHITECT.

COMPETITIONS FOR TOWN AND SHIRE HALLS, BEDFORD

WINNING DESIGNS AND ASSESSORS' REPORTS

THE limited competitions for designs for a proposed Town Hall for Belford and a Shire Hall for Bedfordshire—both to be built on adjacent sites in Bedford—have now been decided.

In the Town Hall competition, the designs of Messrs. Harvey and Wicks, FF.R.I.B.A., of Birmingham, have been accepted. The assessor was Mr. H. V. Lanchester, F.R.I.B.A.

Mr. Oswald P. Milne, F.R.I.B.A., has gained the competition for the Shire Hall, for which Professor S. D. Adshead, F.R.I.B.A., was the assessor.

ASSESSORS' REPORTS ON COMPETITIONS.

FOLLOWING are the assessors' reports: (*a*) of Mr. H. V. Lanchester on the Bedford Town Hall competition; (*b*) of Professor S. D. Adshead on the Shire Hall, Bedford, competition; and (*c*) joint report by Messrs. Adshead and Lanchester:—

(A) BEDFORD TOWN HALL COMPETITION.

Mr. H. V. Lanchester reports: After examining carefully the five designs submitted I have no hesitation in awarding the premium to design No. 3 [Messrs. Harvey and Wicks] as exhibiting the best appreciation of the requirements for a Town Hall suitable to the site on which it is placed. This design, both practically and artistically, has great merit and is obviously the work of an accomplished architect. No other design has met the difficulties in planning and massing the building as well as this. At the same time, I do not think that it would be desirable to carry out the design without modification as there are a number of minor points on which these would enable it to conform more closely to the requirements of the Corporation; points which could not be definitely insisted on in the Conditions, without unduly restricting competitors in their designs.

As explained in the joint report it is not practicable to provide an adequate courtyard between the Town Hall and Shire Hall, therefore the main entrance to the Town Hall would be better placed in St. Paul's-square. This would enable the public hall to be brought down to a lower level, which would be advantageous as it is frequently required to be used independently of the Council suite. The Weights and Measures Office is not well placed, as noisy work goes on here. It would be better in the north-west part of the site. Part of the tower is on ground which it has not been intended to build over, but this position is so good that it would be worth while to try and agree to it as admissible.

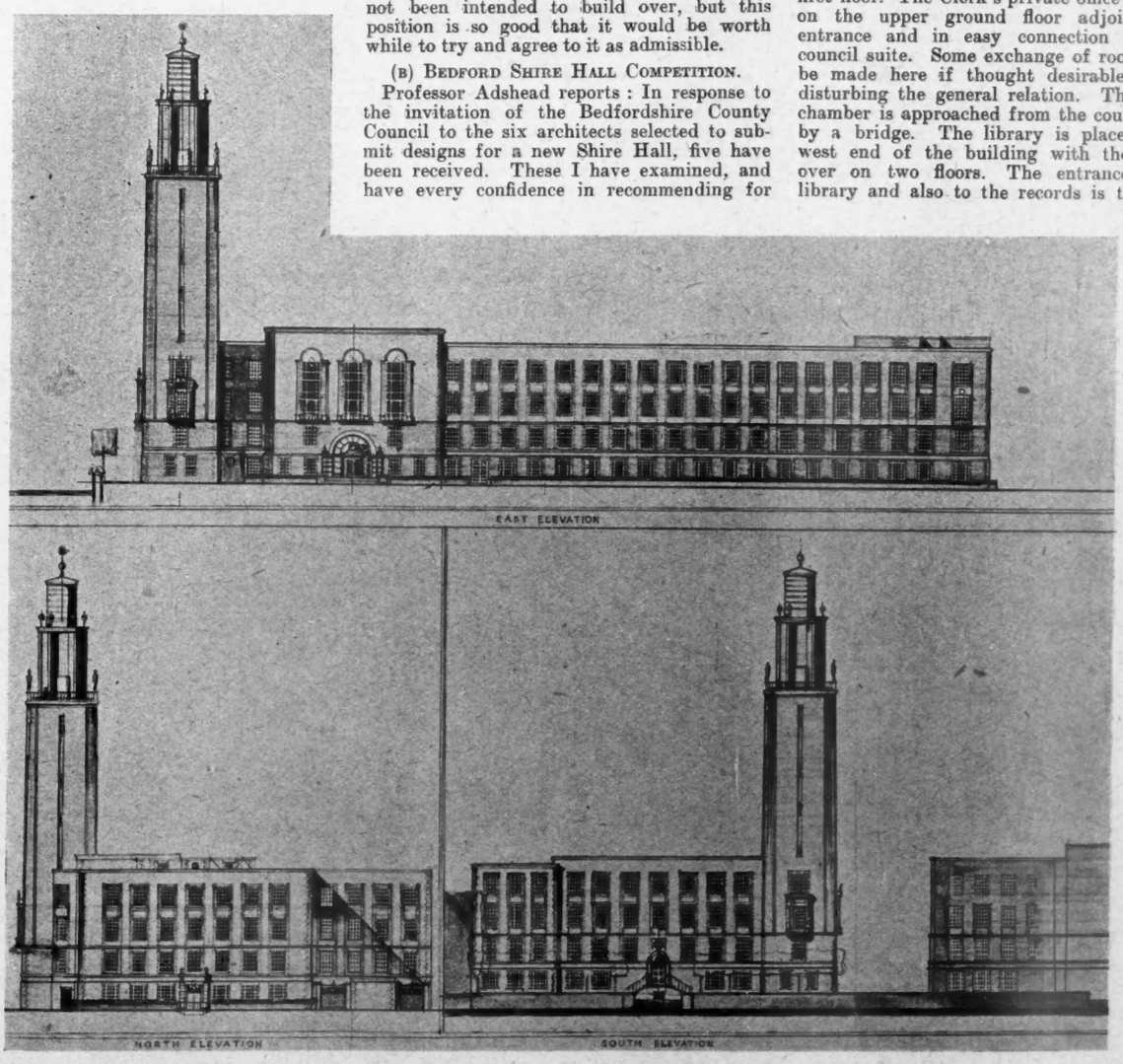
(B) BEDFORD SHIRE HALL COMPETITION.

Professor Adshead reports: In response to the invitation of the Bedfordshire County Council to the six architects selected to submit designs for a new Shire Hall, five have been received. These I have examined, and have every confidence in recommending for the first premium design marked "3" [Mr. Oswald P. Milne.]

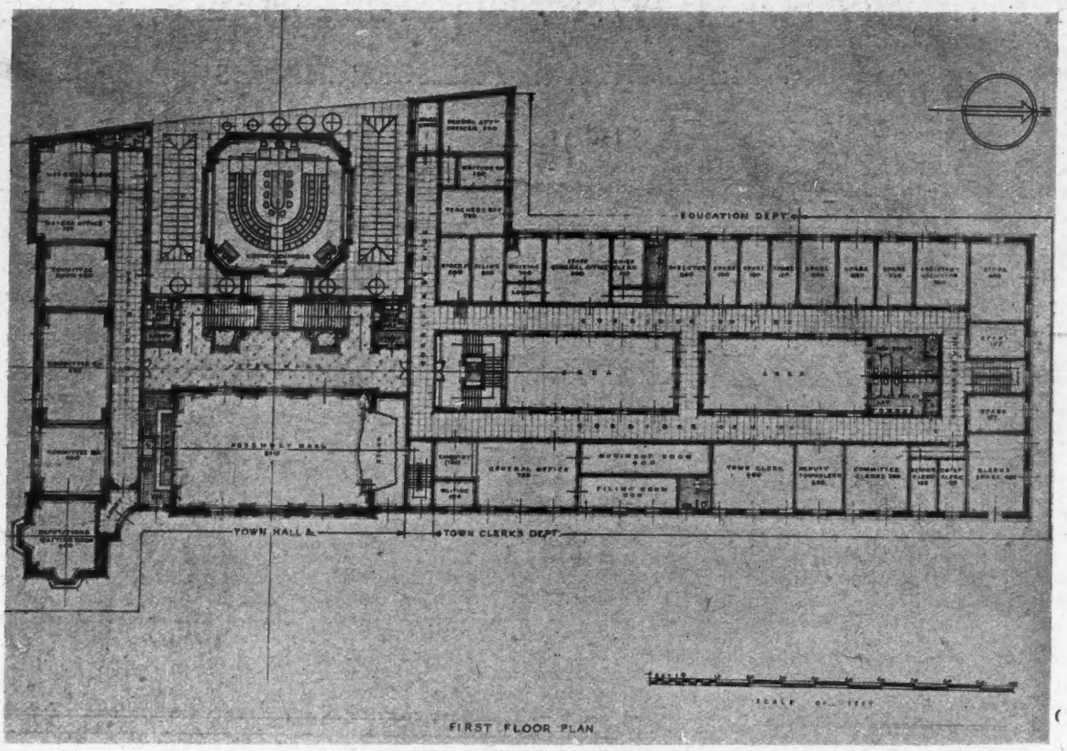
The chief attraction of this design is the way in which it incorporates the present accommodation, without detriment either to the appearance of the building as a whole, its accessibility, or the relation of the different departments, the one to the other. The author of this design is obviously not the same architect as has been recommended for the Town Hall, but the two designs, as explained in the joint report, would form a pleasing contrast.

This design, though perhaps not so attractively presented as others, has easily the most interesting elevations. It has two main entrances, the more important being in the centre of the east elevation to the bridgehead. This provides a direct approach to the upper ground-floor level by the outside steps; a very attractive feature. Such an entrance might be objectionable in wet weather, in which case the entrance from the north front through the Shire Hall could be used as a good alternative.

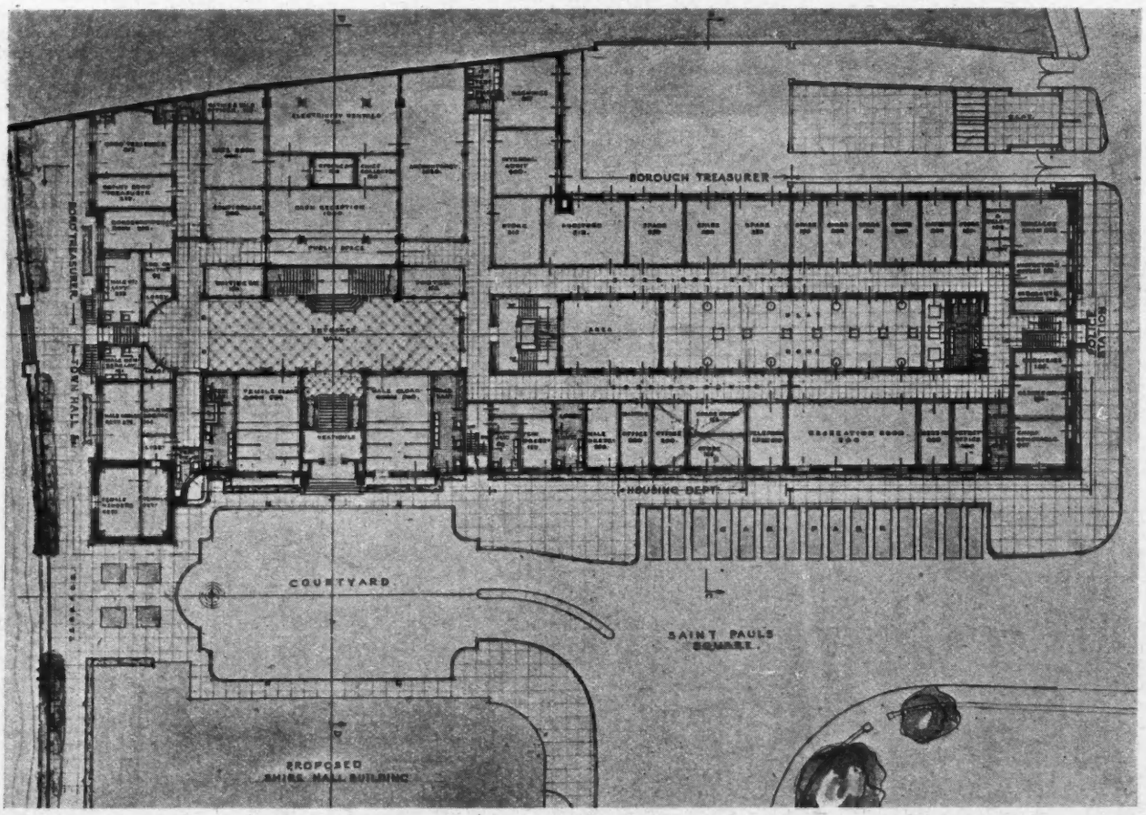
This design preserves and incorporates the present Council Chamber, the Shire Hall, the Law Courts and adjacent rooms, and the two committee rooms overlooking the river on the first floor. The Clerk's private office is placed on the upper ground floor adjoining the entrance and in easy connection with the council suite. Some exchange of rooms could be made here if thought desirable without disturbing the general relation. The council chamber is approached from the council suite by a bridge. The library is placed at the west end of the building with the records over on two floors. The entrance to the library and also to the records is through a



BEDFORD TOWN HALL: WINNING DESIGN. BY MESSRS. HARVEY AND WICKS, FF.R.I.B.A.



FIRST-FLOOR PLAN.



GROUND-FLOOR PLAN.

BEDFORD TOWN HALL: WINNING DESIGN. BY MESSRS. HARVEY AND WICKS, FF.R.I.B.A.

lobby approached directly off the Shire Hall; having regard to the somewhat exceptional use of this library, largely for storing books to be circulated throughout the county, this arrangement would seem to be quite satisfactory.

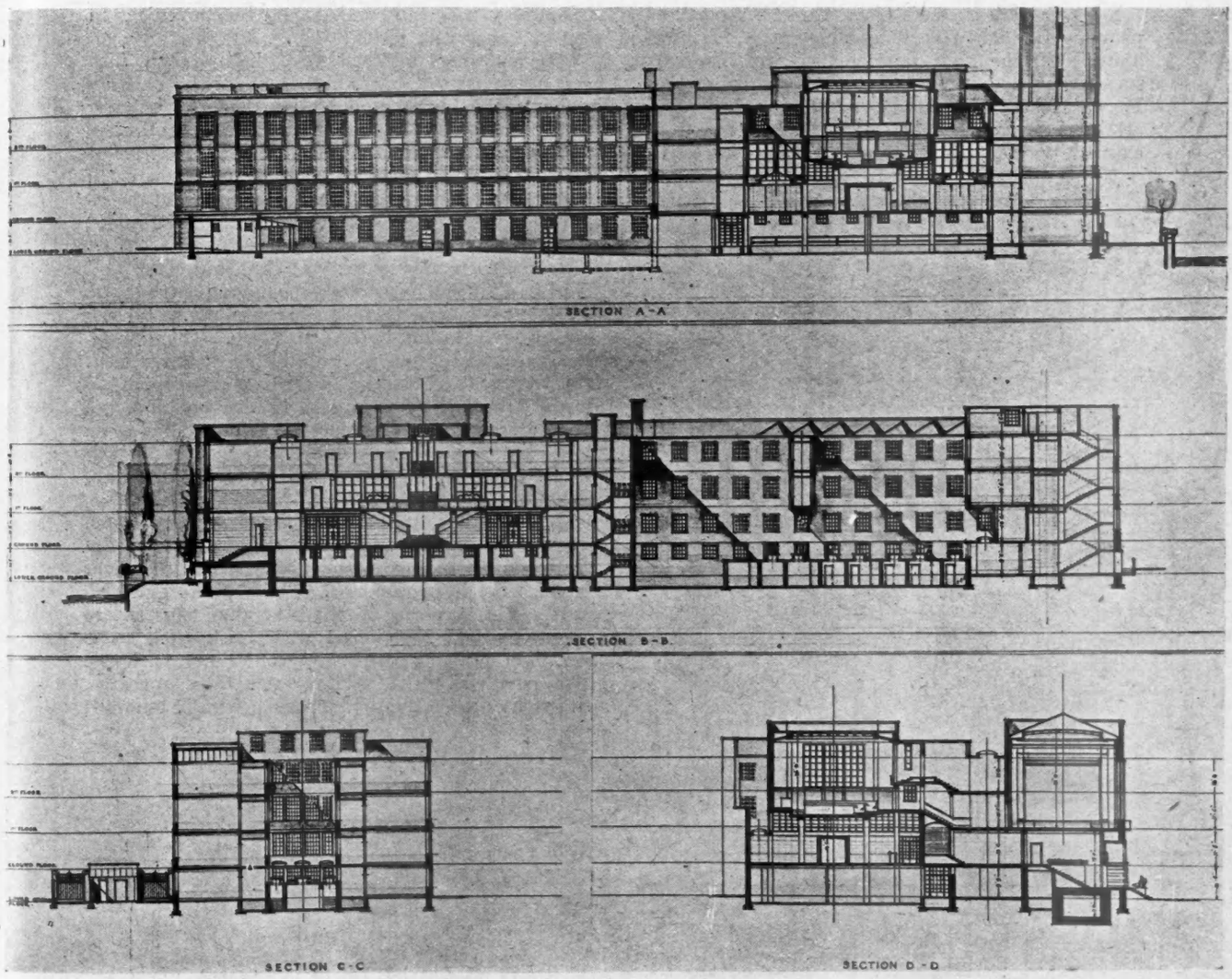
The van dock is well placed with the approach from the west court. Records is placed on the two top floors over the library, and is approached by two staircases, one at either end. The space provided is ample and the lighting is good. Other departments are well placed and conveniently arranged, the M.O. and education on the first floor and Surveyor on the second floor. The Chief Constable has his private room and offices very much where they are at present, but with a new stair and entrance from the north front. The parade room is in the basement. The main corridors do not provide complete circulation except on the ground floor through the Shire Hall and between the Law Courts. This is not necessary, as the Law Courts, the library and the records have little relation with the County Offices. To provide complete circulation on all floors would involve an unnecessary extravagance. As mentioned in the joint report, should the Town Hall tower be erected it would be well to modify somewhat the tower placed at the south-east corner of this building. It would be better kept a little lower, and its lantern might be improved.

The methods of calculating the cost of the section of the old building which has been incorporated are different and therefore the cubes are not comparable. The estimated cost of this building at pre-war prices is £119,632, but owing to the fact that it retains all the main walls of the parts to be incorporated it would prove to be considerably less costly than any of the other designs submitted.

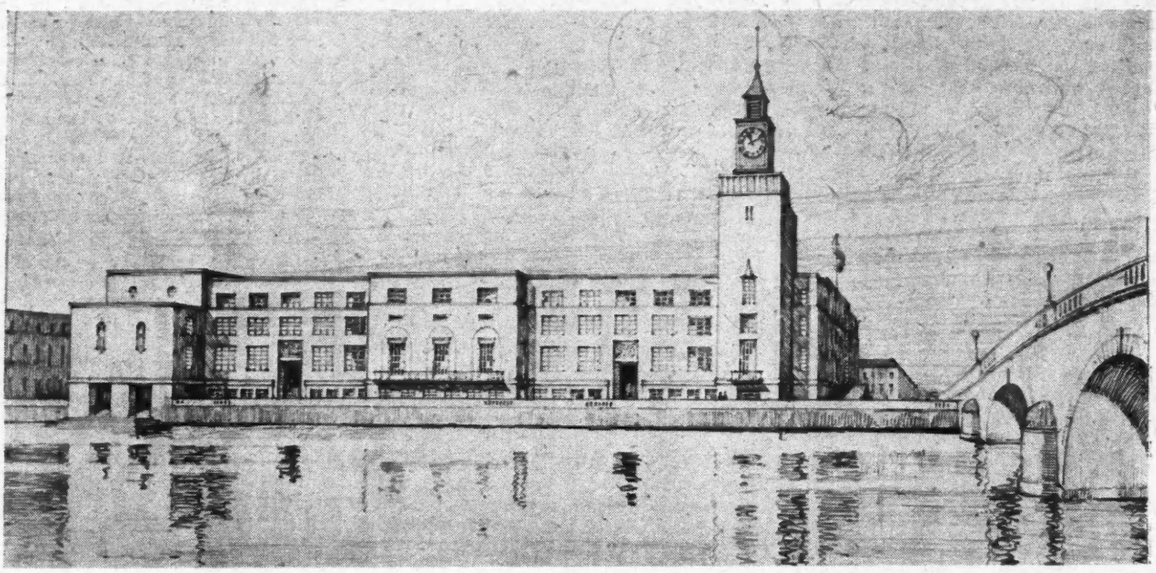
(c) SHIRE AND TOWN HALLS COMPETITIONS. Messrs. Adshead and Lanchester jointly report:—In presenting our reports we wish to point out that after in each case selecting the design which we regard as the most meritorious, we would like to add a few words as to the relation of the two buildings to each other. Each competitor has made his design for the two buildings to harmonise with one another, both as regards appearance and also as regards materials, composition and general scale. The designs which we have selected for recommendation are by different architects, and we have therefore had to give careful consideration to their relationship in these respects.

We are of opinion that as the buildings are completely detached and used for differing purposes by different owners they need not necessarily be designed by the same architect so long as their general mass and scale bear a proper relationship to each other. As the design selected for the Shire Hall follows the line of the west boundary, laid down in the conditions, it would not be feasible to set it back as shown in the design for the Shire Hall proposed by the premiated architect for the Town Hall, who has planned a courtyard approach to the Town Hall. We consider, therefore, that this feature in his scheme must be abandoned.

As regards the relative height of the two selected designs, these are the same, so that the skyline along the river front would be continuous—a factor not without importance to the general effect. In the premiated design for the Shire Hall there is a low tower at the south-east corner of the site, which would form a fitting termination to the bridgehead. In the premiated design for the Town Hall there is a tower of commanding proportions at the south-east corner of the Town Hall. We consider that by somewhat reducing the height of the tower to the Shire Hall these two towers would make an interesting river front and group together very well in the composition as seen from the bridge. They could not be better placed for this purpose.



BEDFORD TOWN HALL: WINNING DESIGN. BY MESSRS. HARVEY AND WICKS FF.R.I.B.A.



PERSPECTIVE (BY AUTHOR) OF WINNING DESIGN IN SHIRE HALL COMPETITION.

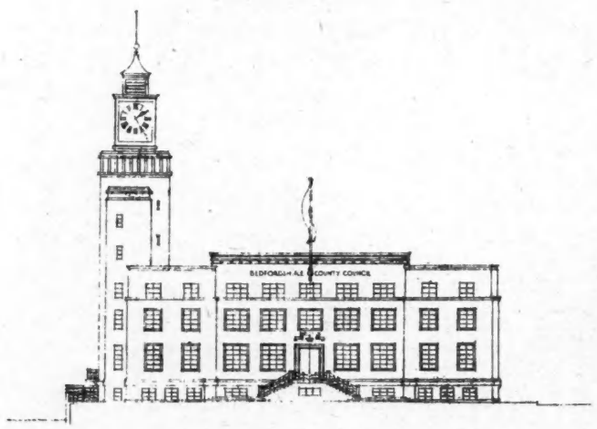
Following are extracts from winner's report:—In planning the enlargement and reconstruction of the Shire Hall, the first consideration was the extent to which the existing buildings could be retained. It was felt that the true solution could only be achieved if the new parts could be married to the existing without very extensive alterations and in such a way that the result would be convenient in plan and attractive in elevation.

The following matters have been taken into account in considering what parts of the existing buildings should be retained (*a*) that the existing foundations should be retained as far as practicable, because the construction of deep foundations near to the river is an expensive matter; (*b*) that where the superstructure is retained, the alterations and reconstructions should be, as far as practicable, of a minor character.

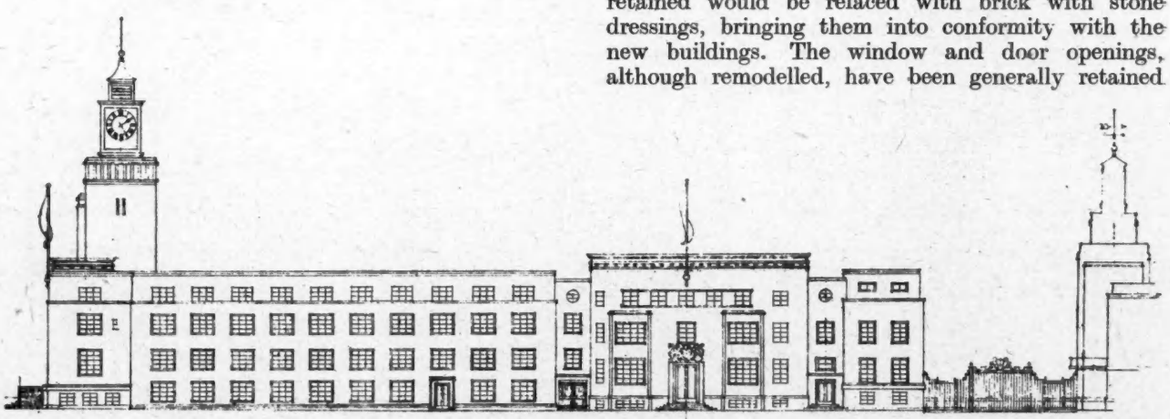
The parts retained are: (1) the Shire Hall and Courts, *i.e.*, the Waterhouse building, with little alteration; (2) the Council Chamber, etc.; (3) the projecting extension on the south side. The foundations and lower ground floor of this block are retained. The Weights and Measures Department continues to do duty; (4) the Adams and Holden building, the foundations of which are retained as well as some portions of the upper structure.

[The portions of the various old structures are shown in the plans and section hatched.—Ed.]

To give unity to the whole building the turrets, bay windows, roofs and decorative features of the Waterhouse building, both on the street and river fronts, have been removed. These fronts and also such external parts of the other buildings as are retained would be refaced with brick with stone dressings, bringing them into conformity with the new buildings. The window and door openings, although remodelled, have been generally retained

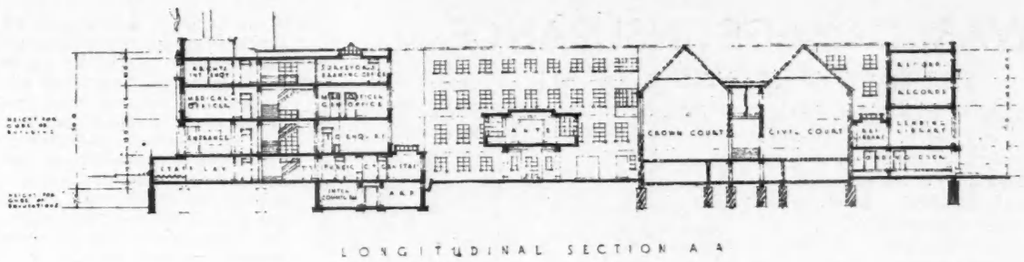


EAST ELEVATION TO HIGH STREET



NORTH ELEVATION TO ST PAULS SQUARE

SHIRE HALL, BEDFORD: WINNING DESIGN, BY MR. OSWALD P. MILNE, F.R.I.B.A.



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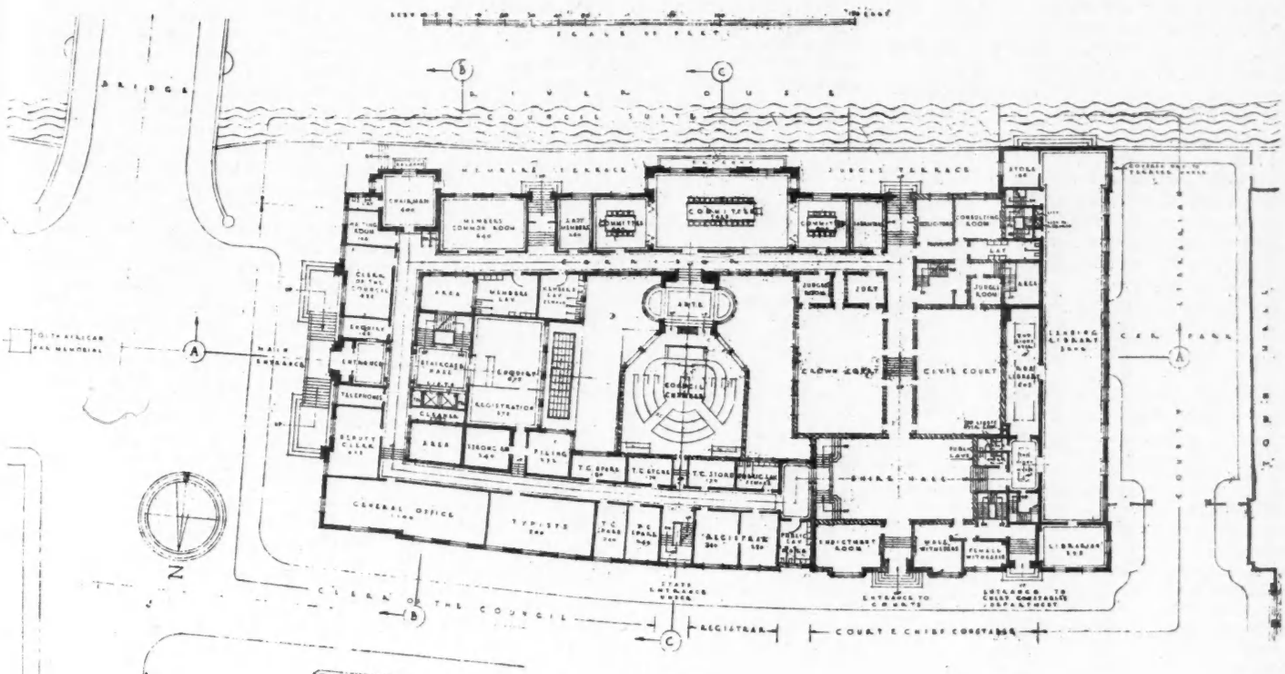

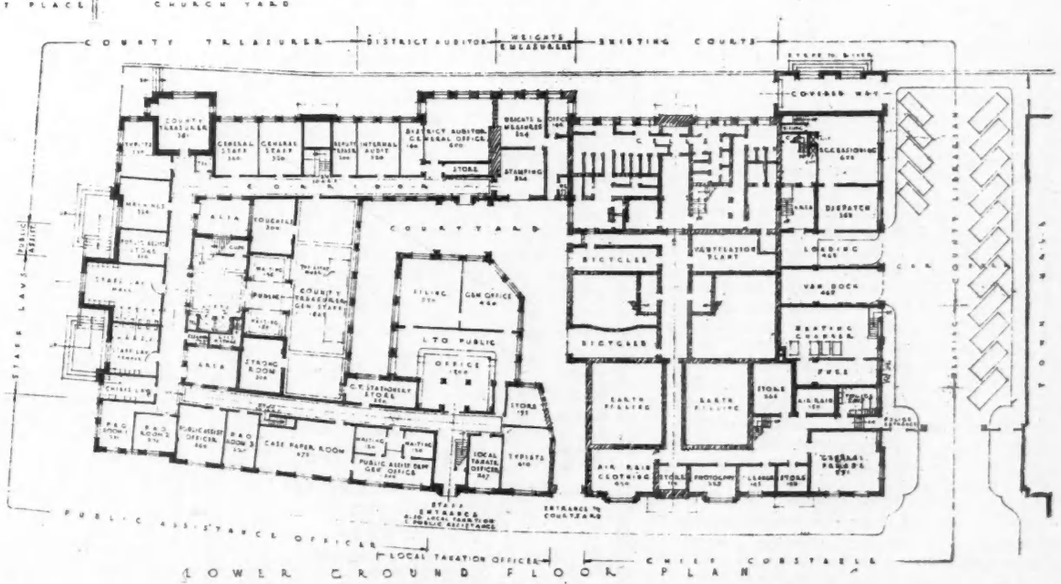

HATCHED PORTIONS OF PLANS REPRESENT INCORPORATED PARTS OF OLD BUILDINGS.

in shape and size so as to minimise work upon the walls.

The building would be of fireproof construction, a skeleton frame of reinforced concrete being used, with floors and roofs of hollow tiles with solid reinforced concrete floors to A.R.P. departments. The frame would be faced with brick. Roofs would be covered with asphalt and an insulating material. The turret on the tower would be covered with copper.

The new portions of the building are estimated (pre-war values) at £90,367; alterations at £27,800; and services and fittings at £7,250—a total of £125,417.

SHIRE HALL, BEDFORD: WINNING DESIGN. BY MR. OSWALD P. MILNE, F.R.I.B.A.

WAR DAMAGE INSURANCE

SUMMARY OF PROVISIONS OF BILL.

The Bill consists of four Parts. Part I provides a compulsory, contributory scheme of compensation for war damage to buildings and other immovable property (including fixed plant and machinery). The arrangements for the payment of compensation and for the collection of contributions cover the "risk period" beginning with the outbreak of war and ending on August 31, 1941. At the end of that period the scheme will be subject to review and any further arrangements for any subsequent war period will be the subject of new legislation.

Part II provides a compulsory scheme of insurance for all the movable assets of business undertakings (movable plant and machinery, office and shop equipment, etc.) and a voluntary scheme of insurance for personal chattels (furniture, clothing, etc.).

Part III comprises certain amendments in the existing statutes relating to the War Risks Insurance Scheme for Commodities.

Part IV deals with miscellaneous and general matters.

PART I—BUILDINGS AND OTHER MOVABLE PROPERTY.

War Damage Commission.—The administration of this Part of the Bill, apart from the collection of contributions, will be in the hands of a new body, the War Damage Commission (Clause 1), to exercise its functions in conformity with the national interest in such matters as town planning, housing, the supply of labour and materials, etc. (Clause 8 (1)). The collection of contributions under the Bill will be the responsibility of the Commissioners of Inland Revenue.

Basis of Compensation.—Payments will be of two kinds—"cost of works" payments and "value" payments. "Cost of works" payments will in general represent the actual current cost of repair, subject to provisions to ensure the reasonableness of the works and costs (Clause 4 (2) and (3)). If, however, such costs would exceed in the case of a building the value of the building when repaired, or in the case of land the depreciation in its value as the result of the damage, then a "value" payment will be made (Clause 5 (1)). A "value" payment will be equal to the difference between the values of the property immediately before and immediately after the damage on the basis of prices current at March 31, 1939 (Clause 4 (4) and (5)). On such values there will be an appeal to a Referee (Clause 7 (2)). In the case of properties which are made good in the national interest, a "cost of works" payment may be made notwithstanding that it exceeds the limit referred to above (Clause 8 (3) (*b*)). In all cases additional compensation will be paid to cover the cost of temporary repairs carried out to safeguard the property (Clause 6). Payments will not be made in cases of less than £5 (Clause 2) (1).

Time of Making Payments.—Provision is made for payment for immediate repairs to essential properties and "first aid" repairs to houses and other properties, and generally the time of payment will be determined according to the national interest, and will depend primarily on the supply and availability of labour and materials. "Cost of works" payments will be made as and when the repairs are carried out; "value" payments will be made at such times as may be directed (Clause 9 (1)). The Commission will, however, be empowered to make advances up to £500 to a person who needs funds to secure alternative accommodation to himself or his family or his business (Clause 9 (4)). Interest at 2½ per cent. per annum will accrue on "value" payments from the date of damage and will be paid when the compensation is paid (Clause 9 (3)).

Persons to whom Payments will be Made.—A "cost of works" payment will be made to the person by whom the cost of executing the works is incurred. A "value" payment will be apportioned among all persons owning a "proprietary interest" in the property as they may agree, or, in default of their agreement, as may be determined by a Referee (Clause 10).

Where a proprietary interest is mortgaged, the share of any compensation apportioned to that interest will, in the absence of agreement to the contrary between mortgagor and mortgagee, be paid to the mortgagee, who will account for it to the owner as though it were the proceeds of sale (Clause 10 (4)). Where the compensation is greater than the debt, the excess will go to subsequent mortgagees (if any) and the final balance to the mortgagor.

A Contribution will generally be payable in respect of each property and will be based on the annual value of the property, that is, on the net assessment to Income Tax Schedule A, or where such an assessment is not available, on the net annual value for rating (Clause 14). The contribution will be payable in five annual instalments each equal to 2s. in the pound of the annual value. In the case, however, of agricultural properties and properties not costing more than £5,000 devoted to games and recreation the instalments will be at the rate of sixpence in the pound (Clauses 14 and 15).

If the compensation in respect of damage during the risk period exceeds the aggregate contributions and other receipts, the balance will be borne by the Exchequer up to the limit of an amount equal to the aggregate receipts. Power is taken (Clause 16) to increase the rate of contribution if the estimated aggregate contributions and other receipts fall short of half of the estimated payments of compensation in respect of damage during the risk period. Provision is made for the payment of contributions in advance with an allowance of interest at 2½ per cent. on such payments (Clause 24). In cases where damage occurs and a "value" payment, but not a "cost of works" payment, is made, outstanding instalments of contribution will be deducted from the compensation. Contributions will not be collected in any case where the property is uninhabitable by reason of war damage. (Clause 25.) The contribution, which is in the nature of a capital liability, will not be allowed as an expense for the purposes of income tax, national defence contribution or excess profits tan. (Clause 61.)

Apportionment of Contributions.—Each year's instalment of the contribution will, if there is only one "proprietary interest" in a property, be payable on July 1 of that year by the owner of that interest on the preceding January 1; where there is more than one such interest it will be payable on July 1 by the owner of the interest which as between them carries the immediate right to possession of the whole of the property.

If any interest is mortgaged and the mortgage debt is greater than half the value of that interest part of the contribution borne by the mortgagor will, in certain cases, be passed on to the mortgagee. (Clause 19.) The cases in question are those in which the mortgage arose out of the construction or acquisition of a dwelling-house of an annual value not exceeding £100 or of a farm of an annual value not exceeding £250. The Clause provides that in such cases if the mortgage debt at the January 1 exceeds half, but does not exceed three-quarters, of the pre-war value of the mortgaged interest, the mortgagee shall bear one-third of the mortgagor's liability in respect of the year's instalment and that if the mortgage debt exceeds three-quarters of the value of the mortgaged property the mortgagee shall bear two-thirds of that liability.

Special Cases.—Buildings in which the Crown or Diplomatic Representatives have a sole interest are exempt. Charities for the relief of poverty, the treatment of sickness, etc., or the advancement of religion will pay no contribution, while charities for the advancement of education, science or research will pay contribution at one-third of the full rate. Public Utility Undertakings will be the subject of further legislation. (Clause 30.)

The provisions of the Bill shall not apply—either as regards contribution or compensation—to unsettled freehold property held inalienably by the National Trust and National Trust for Scotland. (Clause 31.)

Power is taken to credit compensation against any loan which has been, or may be, made by a Department under the Housing (Emergency Powers) Act, 1939, and the Essential Buildings and Plant (Repair of War Damage) Act, 1939. (Clauses 33 and 34.)

PART II.—NEW SCHEMES FOR THE INSURANCE OF GOODS.

Part II of the Bill makes provision under two new schemes for the insurance against war risks of those classes of movables which are not at present insurable. One scheme—the "business scheme"—will include movable plant and machinery, office furniture, etc., owned by or in the possession of or mortgaged to a person for the purposes of his business. The other scheme—the "private chattels scheme"—will cover furniture and effects not falling within the first scheme. (Clauses 42, 43 and 44.) Both the new schemes will be administered by the Board of Trade. Premiums will be collected and policies issued by the Fire Offices and Lloyds, acting as the agents of the Board of Trade. Damage will be valued and claims assessed for the Board by the Valuation Office of the Inland Revenue Department.

Under the "business scheme" a person will be entitled and, if he owns insurable property exceeding a prescribed sum in value, he will be required to insure for the full value of his property. (Clause 45). It is proposed to prescribe £1,000 as the sum in question. Compensation will be paid at such times as may be directed, and will be paid during the war where the amount does not exceed an amount to be fixed or the Board of Trade are satisfied that the replacement or repair of the goods destroyed or damaged is expedient in the national interest. Where compensation is deferred, interest will accrue at 2½ per cent. per annum. (Clause 44.)

It is proposed to prescribe a rate of premium of 30s. per cent. in respect of the war period to the end of September, 1941, and that in order to spread the charge separate policies shall be issued for each of three successive periods ending on or about that date.

Special provisions govern the application of the "business scheme" to agriculture. (Clause 45.)

The professions will come within the business scheme.

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Power is taken to render insurance voluntary in prescribed cases (*e.g.*, the movables of hospitals and certain charities). (Clause 45.)

"PRIVATE CHATTELS SCHEME." — Insurance under this scheme will be voluntary, and it is proposed to prescribe a rate of premium of 50s. per cent. Annual policies will be issued covering a period of one year from the date of issue. Immediate compensation will be paid up to a limited amount only, and the balance, except in cases of hardship, deferred until such time as may be directed, interest accruing at 2½ per cent. (Clause 44.) It is provided in Clause 47 that a policy under this scheme shall limit the amount which may be insured by any one person to £1,500, together with an additional sum not exceeding £500 in respect of a motor-car or motor-cycle.

The scheme whereby compensation is at present paid to persons with incomes of £400 if married and £250 if single, for the loss of essential furniture and clothing will be continued.

GOODS DAMAGED OR DESTROYED BEFORE THE COMING INTO OPERATION OF THE NEW INSURANCE SCHEMES.—Power is taken in Clause 50 to make payments where damage has occurred before the coming into operation of the schemes. Premiums payable under the "business scheme" or the "private chattels scheme" will not be allowed as an expense for the purposes of income-tax, national defence contribution or excess profits tax. (Clause 61.)

PART III—AMENDMENTS OF THE COMMODITIES INSURANCE SCHEME.

Part III of the Bill provides for certain amendments of Part II of the War Risks Insurance Act, 1939, relating to the insurance of commodities. Power is taken in Clause 57 to permit voluntary insurance under the commodities insurance scheme in cases of goods indestructible, or, under war conditions, unsaleable, and previously excluded from insurance.

Hire Purchase.—It is proposed that goods supplied under hire-purchase agreements should become insurable under the commodities insurance scheme (Clause 55 (2)) and that the power under Clause 57 to make goods voluntarily insurable under that scheme should then be exercised in respect of goods supplied under agreements concluded after the date when the present Bill becomes law. Goods supplied under agreements concluded before that date will be made insurable voluntarily under the "business scheme."

ESTIMATES OF RECEIPTS AND PAYMENTS.

(*a*) PART I—BUILDINGS AND OTHER IMMOVABLE PROPERTY.—It is estimated that a full collection of the contribution at the rates laid down in Clause 15 of the Bill (excluding public utility undertakings) would produce about £200,000,000 in all over the five years during which instalments are payable.

(*b*) PART II.—INSURANCE OF GOODS.—(*i*) *The "Business Scheme."*—No reliable estimates of the total value of goods insurable under the scheme are available, but it is thought that the receipts from a premium of 30s. per cent. to the end of September, 1941, will be of the order of £25,000,000. (*ii*) *The "Private Chattels Scheme."*—No estimate possible. (*c*) *Part* III.—*Amendments of the Commodities Insurance Scheme.*—The adjustments made in the commodities insurance scheme are not likely to have any appreciable effect on the finances of the Commodities Insurance Fund.

AIR RAID SHELTERS

RECOMMENDATIONS OF A.R.P. CO-ORDINATING COMMITTEE

The National A.R.P. Co-ordinating Committee has sent the following letter to Mr. Herbert Morrison, the Minister of Home Security :—

Dear Mr. Morrison,—On September 17 this Committee was instrumental in taking to the Home Office a deputation speaking for some 700,000 organised citizens from all parts of England and from Scotland and Wales, and containing representatives of the local authorities, trades unions and other important bodies.

The deputation urged the need for fundamental improvements in the A.R.P. scheme in general and for the provision of bomb-proof shelters in particular, and put forward specific proposals as to how this could be done.

The deputation was promised that Sir John Anderson, G.C.B., M.P.—then Minister of Home Security—would consider the proposals and would reply to them in writing to the Secretary of the Committee.

Since, however, no reply had been received by October 3, we wrote urgently pressing for a statement from the Minister as to what steps were proposed to implement the suggestions put forward by the deputation.

On the same day the announcement was made that you had been appointed Secretary of State for the Home Department in succession to Sir John Anderson.

Recalling the various public statements made by you, we considered that we had the right to expect a prompt and favourable reply to our proposals, particularly with regard to bomb-proof shelters. We recall, for instance, that in the Parliamentary debate on A.R.P. on March 1, 1939, you said :—

> "I can only say that, in my view, as far as practicable, a 100 per cent. bomb-proof shelter is eminently desirable in the interests of policy."

It is, therefore, with regret that we note not only that the deputation is still without a reply, but that you are proposing no basic changes whatever in shelter or other A.R.P. policy. We have carefully studied your statement made over the wireless on November 3, reading this in conjunction with your first Parliamentary speech as the responsible Minister made on October 10, 1940, and with the announcement made by you on October 19 relating to the speed-up in the construction of air-raid shelters.

We must admit that we are exceedingly disturbed at the position now disclosed, which appears to be as follows :—

You have rejected a national programme of bomb-proof shelters as impossible. Policy is still to be based on the theory that it is safer to scatter the people in a large number of small shelters. Therefore more Anderson shelters, strutted basements and modified forms of brick surface shelters are to be constructed. These to be supplemented by the strengthening of the lower floors of certain strong buildings and to a very small extent by the driving of new tunnels in a limited number of cases.

We do not propose to repeat in full the reasons for saying that a policy of this sort is completely inadequate for the safeguarding of the lives of the people. To do so would be to reiterate criticisms which we have consistently made since the policy was first adopted by Sir John Anderson. We would, however, earnestly ask you to go carefully through the evidence produced by members of our deputation, based on their actual experience of air-raid conditions in various parts of the country. These experiences not only bear out our contention of the complete inadequacy of the shelter policy which has now apparently been adopted by you, but they also strikingly illustrate the lack of confidence of the people in that policy.

There are, however, two basic points with which we feel it is essential to deal.

You made it clear in your broadcast recently that Government shelter policy is based on the dispersal theory, *i.e.*, the assumption that it is safer to scatter the people in small shelters. This theory is completely fallacious and cannot be supported on scientific grounds. It is, indeed, surely rejected by your own proposal to extend the tube shelters, each of which already holds many thousands.

The safety of each individual is determined not by whether he happens to be with two or with two thousand other people, but by the safety of the shelter he is in—that is, by the thickness of its roof, walls and floor.

In fact, dispersal in small shelters, far from resulting in greater safety, actually militates against it. A shelter for five people will, for a given expenditure per head, be far less safe than a shelter for five thousand. Additionally, large shelters are far easier and cheaper to equip with necessities for health and comfort.

We would refer also to your statement that the universal provision of deep shelters is impossible, as we believe this will cause widespread misapprehension. If by your statement you meant that it is impossible to provide tunnel shelters for everyone, we agree. But any realistic policy of bomb-proof shelters involves the use both of tunnel (or deep) shelters and of shelters depending not on depth but on concrete and steel for their bomb-proof qualities. Although you did not deal with this latter and most important form of bomb-proof shelter, we are convinced your arguments against deep shelters, although they do not apply, will be interpreted as relating to all forms of bomb-proof shelter.

We are convinced that the provision of bomb-proof protection for the civilian population is both practicable and essential. We indicated, on the occasion of our deputation, how the problem could be tackled. However, since no action has been taken on our proposals we now feel it necessary both to recapitulate and to amplify them. We therefore ask that the following policy is adopted with the utmost possible despatch :—

1. Fully bomb-proof protection to be provided for the civil population. This protection to take different forms in different areas, in accordance with the local possibilities. The guiding principle to be the provision of bomb-proof shelters for the maximum number of persons in the minimum possible time. Each of the following forms of shelter must therefore play a part :—

(*a*) Reinforced concrete shelters, either above or below ground, and holding from 100 to 1,000 people each. An outstanding

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example of this type of shelter is that submitted by us to Sir John Anderson and now popularly christened the Haldane shelter. As you will be aware, this shelter has been approved by your Department, who have assured us that it will rank for grant at least as to part of its cost.

(*b*) Large multi-storey reinforced concrete shelters for densely populated areas. Large shelters of this type are more economical than shelters of the single-storey types and should be built where density of the population warrants. An outstanding example of this type is the shelters submitted to the Home Office in February, 1939, in the famous "Finsbury Scheme." One of these shelters, which are often called "deep shelters," can hold many thousand people. The main reason given by the Home Office for rejecting them was as follows: "Sir John Anderson feels obliged to reject them. . . . He is advised that, on any probable view of the conditions of an actual air raid, there would not be any real prospect that the inhabitants of the Borough as a whole would succeed within the warning time in gaining access to the proposed shelters."

I think you will agree that this main reason given for rejection has been refuted if by nothing else than by the manner in which the far less accessible tubes have served as shelters. On the practicability of this type of shelter, it is necessary only to state that a reputable firm were under contract to complete one in 20 weeks and at a cost of some £13 per head when the outbreak of war interfered with the financial arrangements.

(*c*) The utmost possible adaptation of existing tunnels as shelters, and their extension. Research already carried out by us shows that in London alone there is considerable space (for instance, disused Tube stations) additional to that already in use, and which could be readily adapted.

From the most favourable parts of the London Tube system new tunnels should be driven, using the disused lift shafts—of which there are many—as working shafts. Each face worked upon could provide shelter for a figure of the order of 130 people per week, and with proper organisation of labour there is no reason that 80 to 100 faces should not be worked at the same time, thereby providing additional shelter for some 10,000 to 13,000 people per week.

(*d*) New tunnels in those parts of the country where conditions are favourable. The cost per head can be very low in favourable soils, such as chalk or limestone. Tunnelling can proceed at a rate up to 25 feet per day. That is to say that, in favourable circumstances, each face will add accommodation for 230 seated people per week, and the number of faces is limited only by the amount of labour available. The practicability of tunnelling of this type is proved by the fact that Easington Rural District Council is starting on a scheme of tunnels in the nearby limestone hillside. The cost, inclusive of lighting, forced ventilation and sanitary conveniences, will work out at about £8 per head for seating accommodation.

Meanwhile, pending the construction of bomb-proof shelters, immediate measures such as the following could be carried out:—

(i) The conversion of parts of steel or reinforced concrete-framed buildings into shelters. In order to avoid confusion, we would state that we have always condemned the use of basements of non-framed buildings, and that our condemnation has been amply borne out by experiences with this type of shelter. In by far the majority of cases it is, of course, quite impracticable to make shelters in steel-framed buildings really bomb-proof.

(ii) The taking over for public use of large and relatively safe private shelters. Although legal powers already exist sanctioning this, the powers are either insufficient or are not rigorously enough applied.

2. The improvement of facilities in existing shelters and their inclusion in new shelters.

The essential facilities are:—

(*a*) Properly designed bunks. Not only are these necessary for comfort—they are essential for health. After seven weeks of intensive bombing there is not, as far as we can discover, a single bunk in the Tubes of London.

(*b*) Mechanical ventilation. This is practicable only on a large scale and, again, is necessary not only for comfort—it will at the same time do something at least to stop the spreading of disease in conditions where people are spending long periods in the shelters. Furthermore, it is the only really practical method of rendering a shelter gas-proof.

(*c*) Proper and adequate sanitation, including the installation of water-closets in place of chemical-closets. The former are not only healthier, but experience shows them to be far cheaper, if account is taken of the high cost of maintaining the chemical closets.

(*d*) Canteens, especially for the provision of hot drinks, and snacks, in the larger shelters.

(*e*) Drinking water, first-aid and isolation rooms; adequate lighting. Provision for disinfection of clothing and bedding.

We wish to underline that the provision of these facilities is not simply a matter of comfort, important as this is. It is essential if the health of the nation is to be safeguarded from the spread of the disastrous epidemics which are likely to arise from present conditions.

3. The taking of every possible measure to make available the necessary materials and man-power for bomb-proof shelter construction. Most important is cement.

The following are essential steps:—

(*a*) The introduction of the manufacture of Portland blast-furnace cement to augment ordinary Portland cement. Your Department has already in its hands our memorandum showing how this, in conjunction with certain other measures, could secure an early increase in production of some 75 per cent.

(*b*) Modifications in the priority system so as to make available a share of materials proportionate to the importance of A.R.P. The need for drastic modification is sharply illustrated, as follows:—

The annual capacity of the steel industry was (pre-war) some 13,000,000 tons. We have been informed by your Department that the *annual* allocation of steel for A.R.P. is the ridiculous figure of 11,000 tons.

With regard to the availability of labour, this would, of course, be partly dealt with by a modification of the priority system. We would also draw attention, however, to the considerable amount of unemployment still existing, and particularly to the fact that the figures include a large number of skilled building trade workers and miners, who would be particularly useful in the policy of reinforced concrete shelters and tunnels respectively. Where necessary, the age of reservation should be lowered and skilled men withdrawn from the armed Forces. The Government has, however, pursued an opposite policy. In the case of the miners, for instance, the age of reservation has been revised to 30 years so that many unemployed miners, instead of using their skill for tunnel construction, are being drafted into the Army.

4. Reframing of the machinery of the A.R.P. scheme generally, and, in particular, reconstituting the office of the Regional Commissioners so that local authorities have adequate representation. This is essential if difficulties arising from the administration of A.R.P. are to be overcome.

5. A considerable degree of decentralisation of the warning system, so that information on the movements of hostile aircraft, as well as being passed to the central authority, is also passed directly to those locally responsible for sounding the warning. The authorities on the spot should have power themselves to order sounding of the sirens or the withholding the "raiders passed" signal where safety demands it.

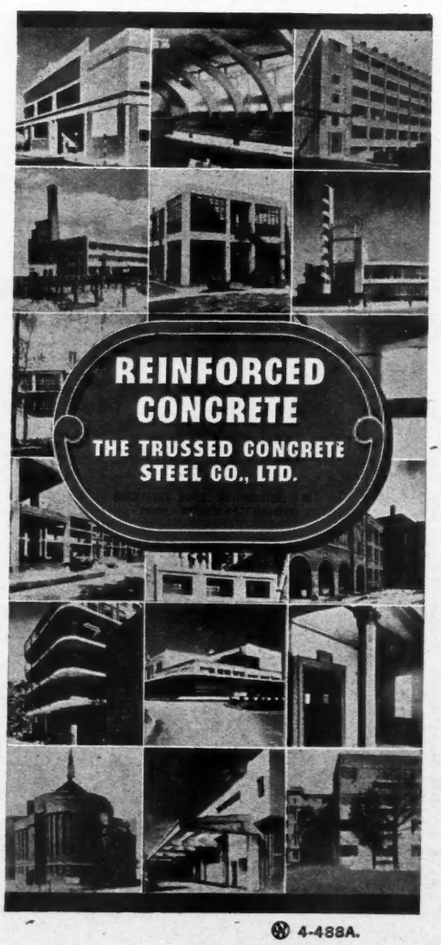
Where the "roof-spotter" system is operated, some means must be devised of supplementing the spotter's powers of observation, often hindered by weather conditions, by the more exact information collected by the official and properly equipped listening-posts.

NOTE.—The cost and capacity figures for shelters assume seating accommodation. The necessary modifications (a slight increase in cost, a slight decrease in capacity) must be made for sleeping accommodation.

In putting forward the above proposals, we would again refer to your statement of October 19, 1940, in which you said that the 100 per cent. financial grant to the local authorities would be dependent upon their shelter schemes following lines approved by you and by the Regional Commissioners. We ask for your assurance that the local authorities be specifically informed that all the types of shelter we have outlined above are officially approved. It may seem hardly necessary, in view of the assurances already given to us by your Department, to ask that the local authorities be informed that the shelter now christened the Haldane shelter is officially approved and ranks, at least for its first stage, for grant. At least one example has, however, been brought to our attention of a Regional Technical Adviser refusing to consider this shelter. Furthermore, it is apparent that most of the local authorities are in doubt on the point. We do, therefore, feel it essential to ask that you clearly inform all A.R.P. schemes-making authorities that the first stage of this shelter now ranks for 100 per cent. grant.

We cannot close this letter without a further endeavour to convey to you the terrible urgency and need for the policy we are advocating. Time and again the Committee has pressed for steps which, had they been taken in time, would have saved untold suffering and loss of life. The Prime Minister tells us we must prepare for the campaigns of 1941 and 1942, yet, if the present A.R.P. policy is continued, 1942 will still find us without even the basis for adequate protection for the people. On the other hand, a virile, forceful and imaginative application of our proposals could change the position beyond recognition and put Britain well on to the path of a completion of the programme.

With a full sense of our responsibility, both to the 700,000 people represented on our deputation and to the numerous other bodies who have since given us their support, we ask that we be immediately informed of the result of the consideration of our proposals.



4-488A.

A.R.P. SCHEMES

LONDON.

Bethnal Green.—B.C. proposing waterproofing 200 communal shelters and concrete covering of trenches.

Chorley.—T. W. Hall and Sons, Gordon-st., Chorley, accepted, at £347 15s. 4d., for relining of approximately 122 yds. of air raid shelter trenches for T.C. Plans by H. D. S. Lowe, M.I.M.&Cy.E., B.E.

Croydon.—C.B. placed contract with R. Mansell, Ltd., of Croydon, at £220, for shelters for 60 children.—Council recommend strengthening of certain corridors and small room, at £650, for shelter accommodation at a council home.

Deptford.—B.C. received sanction of M.H. to borrowing £3,000 for first-aid post purposes.

Hammersmith.—B.C. approved additional accommodation at Bloemfontein-rd. depot, at £150.

Hendon.—T.C. approved application being made to M.H. for approval to erection of further trench, at approximately £250.—Council propose alterations and additions to fire station.

London.—L.C.C. recommended borrowing by Stepney B.C. of £8,355 for air raid precautions and depot purposes.—Council sanctioned minor works at auxiliary stations, at £1,378.

Wandsworth.—For the provision of entrance doors to semi-sunk shelters, the B.C. have accepted the tenders of Messrs. Carslag (at £10 per entrance) and Trussed Concrete Steel Co. (cost plus 10 per cent.).

Wandsworth.—Further 18 surface shelters to be erected in borough.

West Ham.—T.C. recommended contract with J. Burton for supply and erection of 4-tier bunks for 4,000 persons, at 13s. 10d. each.

Wood Green.—B.E. to prepare, for C.C.'s approval, plans and an estimate of cost of erecting a public surface shelter on site adjoining a church.—Home Office approved control room and shelter accommodation at a fire station.

PROVINCIAL.

Altrincham.—T.C. to erect 48-person surface communal shelters. Plans by H. E. Brown, B.S ..

Barrow-on-Soar.—R.D.C. to erect domestic communal shelters. Plans by W. Curtis, S.

Blackburn.—T.C. to apply to M.H. for sanction to borrowing of £14,303 for A.R.P. purposes.

Cannock.—R.D.C. propose public and domestic shelters and strengthening of basements for shelter purposes. F. R. D. Crockett, Stafford, is consultant architect.

Dewsbury.—T.C.—propose communal feeding centres at certain schools, also 15 communal shelters for 570 persons.

Felling-on-Tyne.—U.D.C. received consent to build 109 shelters on various sites, at £2,704. Plans by H. Fawcett, S.—S. also to prepare schemes for preventing flooding of steel shelters by concreting, at £4 per shelter.

Gateshead.—T.C. received consent to provide further batches of 494 domestic shelters, at £10,757, and 942 shelters, at £17,924. Plans by F. H. Patterson, B.E.—T.C. received permission to spend £181 on electric lighting in number of communal shelters.—Shelter to be built at a temporary school, at £145.

Hepton.—R.D.C. to erect domestic communal shelters. Plans by H. L. Bottomley, S.

Kettering.—T.C. accepted tenders from: A. Sturgess; the Kettering Co-operative Society, Ltd., and Browning Bros, all of Kettering, for waterproofing of Anderson steel shelters, at £2,000.

Leicester.—T.C. to erect public shelters at playing fields and clinics. Plans by A. T. Gooseman, M.I.C.E., City E.

Middlesbrough.—T.C. to build communal shelter at R.C. school.—E.C. instructed B.E. to complete concrete lining of all school trenches to prevent flooding.

Newcastle-on-Tyne. — For undressing accommodation at first-aid posts City Council placed contract with T. Main, Elswick-rd., Newcastle-on-Tyne, at £255.—Council accepted following tenders for shelters: J. and W. Lowry, Corporation-st., 29 domestic shelters, at £1,900, and one public shelter, at £500, and E. Gardner, Ltd., Gateshead, for one shelter, at £161.

South Shields.—T.C. to adapt further basements as shelters for 1,577 people.—For shelters at a school for E.C., contract placed with Henderson Bros. (1936), Ltd., Smith-st., Tyne Dock, South Shields.

Uttoxeter.—U.D.C. to erect 96-person and 72-person public shelters. Plans by S. S. Proud, S.

Wallsend.—Corporation to build brick retaining walls to 106 domestic surface shelters, at £5,830. Plans by J. Blench, B.S.

West Lancashire.—R.D.C. accepted tender submitted by C. E. Pearson, 20, Moorgate, Ormskirk, for wiring communal shelters at 4-unit shelters, at £7 10s. each; 3-unit, £7 each; 2-unit, £6 10s. each.

West Riding.—C.C. to erect surface shelters at Aberford, Scholes, Swillington and Copmanthorpe. Plans by A. Booth (A.), County Architect, Wakefield.

Wrexham.—T.C. approved plans for 23 additional communal shelters.

SCOTLAND.

Ayr.—Corporation to erect number of shelters. Plans by T. O'Briene, architect, Municipal-bldgs.

Campbeltown. — Corporation to erect shelters. Plans by David Kellog, Burgh Architect.

Glasgow.—Corporation placed tender for shelters with Robert A. Stewart and Co., Ltd. Plans by Thomas Somers, architect, Office of Public Works.

Greenock.—Emergency Committee had under consideration six sites suggested by Master of Works as suitable for deep shelters, and decided to ask Regional A.R.P. office to send technical experts to examine sites.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender, unless stated to the contrary. The dates at the head of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained. Abbreviations: (A.) for A.R.I.B.A.; B. of E. for Board of Education; B.C. for Borough Council; B.E. for Borough Engineer; B.S. for Borough Surveyor; C. for Clerk; C.B. for County Borough; C.C. for County Council; C.E. for County Engineer; C.S. for County Surveyor; D.S. for District Surveyor; E. for Engineer; E.C. for Education Committee; (F.) for F.R.I.B.A.; (L.) for L.R.I.B.A.; M.W.B. for Metropolitan Water Board; M.H. for Ministry of Health; M.T. for Ministry of Transport; P.C. for Parish Council; R.D.C. for Rural District Council; S. for Surveyor T.C. for Town Clerk and Town Council; and U.D.C. for Urban District Council.

BUILDING.

DECEMBER 23.

Southgate T.C.—Waterproofing of approx. 400 domestic steel shelters by means of concrete floor and walls. B.E. Dep. £1.

DECEMBER 28.

Newcastle-upon-Tyne T.C.—Alterations and additions, consisting of new bathroom, w.c., etc., to lodge at St. Andrew's cemetery. City E.

Ossett T.C. — Surface-type communal shelters. B.S. and E.

JANUARY 11.

***Gravesend T.C.**—Demolition and rebuilding portion of a school. Borough Architect, 5, Woodmille-ter.

PAINTING, ELECTRIC LIGHTING, HEATING, &c.

DECEMBER 21.

Nottinghamshire E.C.—Heating chamber at Stapleford Albany council school. County Architect, Nottingham. Dep. £1 1s.

JANUARY 7.

Colwyn Bay T.C.—Painting of understructure of Victoria pier (paint supplied). N. S. Jeffrey, A.M.I.C.E., B.E. and S.

FEDERATED EMPLOYERS'

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NO DATE.

West Riding E.C.—Staff lavatories at King's-rd. school, Wombwell. C. Ellison, Divisional Clerk, Education Office, Rock House, Swinton, Mexborough.

West Riding E.C.—Painting of Normanton Modern school. M. G. Swaine, Education Offices, 97, Smawthorne-la., Castleford.

ENGINEERING, IRON AND STEEL.

DECEMBER 30.

Bethesda U.D.C.—New intake, supplying and laying about 2,138 yds. of 5-in. and 6-in. asbestos-cement pipes on mountain, and other incidental work. Henry Adams and Son, consulting engineers, 60, Queen Victoria-st., London, E.C.4. Dep. £1.

Kilkenny County Board of Health and Public Assistance.—Water supply for Johnstown and Urlingford, including intake works, laying of 7,006 yds. of mains, construction of reinforced concrete water tower and pumping station. T. Kelly, Engineer's Office, Central Hospital, Kilkenny. Dep. £5 5s.

JANUARY 6.

Enniskillen R.D.C.—2 small filters in connection with proposed new water supply for Lisbellaw. F. G. Townsend, E.

JANUARY 11.

Newthorpe. — Washing, screening and replacement of filter media in two existing beds, with supply of new media; sundry other repairs to works; repairs to two cottages; painting to two cottages. Elliott and Brown, chartered civil engineers, Stanley House, Pelham-rd., Nottingham. Dep. £3 3s.

JANUARY 15.

Dublin T.C.—Reinforced concrete reservoir. City E., 28, Castle-st. Dep. £10 10s.

ROAD, SEWERAGE AND WATER WORKS.

DECEMBER 23.

Ely R.D.C.—6-in. drain from Tower-rd. to Brook-rd., Sutton; 6-in. drain from council houses, Ely-rd., for a distance of 450 ft.; 15-in. and 18-in. drains from Mepal-rd., for distance of 575 ft.; septic tank; 9-in. overflow drain from new septic tank, for distance of 600 ft. D. Denton-Smith, Acting Housing Surveyor, 40, Regent-st., Cambridge. Dep. £2 2s.

DECEMBER 30.

Lewes T.C.—Sewerage, comprising construction of approx. 920 lin. yds. of 12-in. dia. cast-iron rising main, including river and railway crossings and appurtenant works. C. T. Butler, B.S. Dep. £2 2s.

Public Appointments.

DECEMBER 23.

South Bucks A.R.P. Joint Committee.—Temporary technical assistant. J. H. Warren, Clerk, Town Hall, Slough.

DECEMBER 27.

Essex C.C.—Building Assistant in Land Agent's Dept. L. G. Lewis, Deputy C., Chelmsford.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st DECEMBER, 1940

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors]

	Crafts-men.	Lab-ourers.
Aberavon	1/9½	1/4¾
Aberdare	1/9½	1/4¾
Abergavenny	1/9½	1/4¾
Abingdon	1/8	1/3½
Accrington	1/9½	1/4½
Aldeburgh	1/6	1/2
Aldershot	1/8	1/3½
Alfreton	1/9½	1/4½
Alnwick	1/9	1/4¼
Altrincham	1/9½	1/4¾
Amble	1/9	1/4¼
Amersham	1/8	1/3½
Ammanford	1/9½	1/4¾
Andover	1/7½	1/3¼
Ardingley	1/7½	1/3¼
Arundel	1/7½	1/3¼
Ascot	1/7½	1/3¼
Ashby-de-la-Zouch	1/9½	1/4¾
Ashford (Kent)	1/7½	1/3½
Ashford (Middlesex)	1/9½	1/4¼
Ashington	1/9	1/4¼
Ashtead	1/9½	1/4¾
Ashton-under-Lyme	1/9½	1/4¾
Aylesbury	1/7½	1/3¾
Aylsham	1/6½	1/2½
Bagshot	1/7½	1/3¼
Banbury	1/7½	1/3¼
Barnsley	1/9½	1/4¾
Barnstaple	1/7½	1/3¾
Barrow-in-Furness	1/9½	1/4¾
Barry	1/9½	1/4¾
Basingstoke	1/7½	1/3¾
Bath	1/9	1/4¼
Batley	1/9½	1/4¾
Beaconsfield	1/8	1/3½
Beccles	1/6	1/2
Bedford	1/9	1/4¼
Berkhamsted	1/7½	1/3¾
Berwick	1/9	1/4¼
Beverley	1/9½	1/4¾
Bexhill-on-Sea	1/8	1/3½
Bideford	1/7½	1/3¼
Biggleswade	1/7½	1/3¼
Billericay	1/7	1/2½
Birchington	1/7½	1/3¾
Birkenhead	†§1/11	¶
Birmingham	†1/9½	†1/4¾
Bishop Auckland	1/9½	1/4¾
Bishops Stortford	1/8½	1/4
Blackburn	1/9½	1/4¾
Blackpool	1/9½	1/4¾
Blyth	1/9½	1/4¾
Bognor Regis	1/7½	1/3¾
Bolton	1/9½	1/4¾
Bournemouth	1/8½	1/4
Bracknell	1/7½	1/3¼
Bradford	1/9½	1/4¾
Bradford-on-Avon	1/6½	1/2½
Braintree	1/7½	1/3½
Brentwood	1/9	1/4¼
Bridgwater	1/8	1/3½
Bridlington	1/9	1/4¾
Brighouse	1/9½	1/4¾
Brighton	1/8½	1/4
Bristol	1/9½	1/4¾
Broadstairs	1/7½	1/3¾
Bromsgrove	1/9	1/4¾
Buckley	1/9½	1/4¾
Bungay	1/5½	1/1½
Burnham-on-Crouch	1/6	1/2
Burnley	1/9½	1/4¾
Burslem	1/9½	1/4¾
Burton-on-Trent	1/9½	1/4¾
Bury	1/7	1/2½
Bury St. Edmunds	1/9	1/4¾
Buxton	1/8	1/3½
Byfleet	1/9½	1/4¾
Cambridge	1/7½	1/3¾
Canterbury	1/9½	1/4¾
Cardiff	1/9½	1/4¾
Carlisle	1/9½	1/4¾
Carnforth	1/9½	1/4¾
Castleford	1/9½	1/4¾
Caterham	1/6½	1/2½
Chard	1/8½	1/4
Chatham	1/9	1/4¼
Chelmsford	1/8½	1/4
Cheltenham	1/9	1/4¼
Chepstow	1/8½	1/4
Chertsey	1/9½	1/4¾
Chester	1/9½	1/4¼
Chesterfield	1/7½	1/3¾
Chichester	1/9½	1/4¾
Chorley	1/7	1/2¾
Cirencester	1/7½	1/3¾
Clacton	1/9½	1/4¾
Cleveleys		
Clitheroe	1/9½	1/4¾
Cobham (Surrey)	1/8½	1/4
Colchester	1/9	1/4¼
Colwyn Bay	1/8½	1/4
Congleton	1/9	1/4¼
Coventry	1/9½	1/4¾
Cranbrook	1/7½	1/3¾
Cranleigh	1/7½	1/3¾
Crawley	1/7½	1/3¾
Crewe	1/9	1/4¼
Cromer	1/6½	1/2¾
Crowborough	1/7½	1/3¾
Cuckfield	1/7½	1/3¾
Darlington	1/9½	1/4¾
Darwen	1/9½	1/4¾
Daventry	1/8	1/3½
Deal	1/7½	1/3¾
Denbigh	1/8½	1/4
Derby	1/9½	1/4¾
Devizes	1/6½	1/2½
Dewsbury	1/9½	1/4¾
Didcot	1/7½	1/3¾
Diss	1/6	1/2
Doncaster	1/9½	1/4¾
Dorchester	1/7	1/2¾
Dorking	1/8	1/3½
Dover	1/7½	1/3¾
Dovercourt	1/7½	1/3¾
Driffield	1/8	1/3½
Droitwich	1/9	1/4¼
Dudley	1/9½	1/4¾
Dunstable	1/8	1/3½
Durham City	1/9½	1/4¾
Eastbourne	1/8½	1/4
E. Glam. (Mon.Val.)	1/9½	1/4¾
East Grinstead	1/7½	1/3¾
Edenbridge	1/7½	1/3¾
Ely	1/6½	1/2½
Epping	1/9½	1/4¾
Exeter	1/9	1/4¼
Exmouth	1/8	1/3½
Fakenham	1/6½	1/2½
Falmouth	1/8	1/3½
Fareham	1/8½	1/4
Faversham	1/7½	1/3¾
Felixstowe	1/8½	1/4
Filey	1/8	1/3½
Fleetwood	1/9½	1/4¾
Flint	1/9½	1/4¾
Folkestone	1/7½	1/3¾
Frinton-on-Sea	1/7½	1/3¾
Frome	1/6½	1/2½
Gainsborough	1/8½	1/4
Gateshead	1/9½	1/4¾
Gillingham (Kent)	1/8½	1/4
Glossop	1/9½	1/4¾
Gloucester	1/9	1/4¼
Godalming	1/7½	1/3¾
Goole	1/9½	1/4¾
Gosport	1/9	1/4¼
Grantham	1/8½	1/4
Gravesend	1/9	1/4¼
Great Yarmouth	1/7½	1/3¾
Grimsby	1/9½	1/4¾
Guildford	1/7½	1/3¾
Guisborough	1/8	1/3½
Halifax	1/9½	1/4¾
Hanley	1/9½	1/4¾
Harpenden	1/8½	1/4
Harrogate	1/9½	1/4¾
Hartlepools	1/9½	1/4¾
Harwich	1/7½	1/3¾
Haslemere	1/7½	1/3¾
Hastings	1/7½	1/3¾
Hatfield	1/9	1/4¼
Haywards Heath	1/7½	1/3¾
Hednesford	1/9	1/4¼
Hemel Hempstead	1/8½	1/4
Henley-on-Thames	1/7½	1/3¾
Hereford	1/7½	1/3¾
Herne Bay	1/7½	1/3¾
Hertford	1/9	1/4¼
Heysham	1/9½	1/4¾
Hitchin	1/8½	1/4
Hoddesdon	1/9	1/4¼
Holt (Norfolk)	1/6	1/2
Horley	1/7½	1/3¾
Horsham	1/7½	1/3¾
Horwich	1/9½	1/4¾
Huddersfield	1/9½	1/4¾
Hull	1/9½	1/4¾
Hunstanton	1/6½	1/2½
Huntingdon	1/7	1/3¼
Ilfracombe	1/7½	1/3¾
Ingatestone	1/8	1/3¼
Ipswich	1/9	1/4¼
Isle of Thanet	1/7½	1/3¾
Isle of Wight	1/7	1/2½
Keighley	1/9½	1/4¾
Kenilworth	1/9½	1/4¾
Kettering	1/9	1/4¼
Kidderminster	1/7½	1/3¾
King's Lynn	1/9½	1/4¾
Kirkham	1/9	1/4¼
Knowle	1/9½	1/4¾
Lancaster	1/9½	1/4¾
Leamington	1/8½	1/4
Leatherhead	1/9½	1/4¾
Leeds	1/9½	1/4¾
Leicester	1/6½	1/2½
Leighton Buzzard	1/8½	1/4
Letchworth	1/7½	1/3¾
Lewes	1/8½	1/4
Lichfield	1/9½	1/4¾
Lincoln	1/7½	1/3¾
Littlehampton	†§1/11	¶
Liverpool	1/8½	1/4
Llandudno	1/9½	1/4¾
Llanelly		
London—		
12m. radius	*1/11	1/5½
12-15 m. radius	*1/10½	1/5½
Long Eaton	1/9½	1/4¾
Longton	1/9½	1/4¾
Loughborough	1/9½	1/4¾
Louth	1/8	1/3½
Lowestoft	1/7½	1/3¾
Luton	1/9	1/4¼
Macclesfield	1/9	1/4¼
Maidenhead	1/8½	1/4
Maidstone	1/8	1/3½
Malvern	1/8	1/3½
Manchester	1/9½	1/4¾
Manningtree	1/6½	1/2½
Mansfield	1/9½	1/4¾
March	1/6½	1/2½
Margate	1/7½	1/3¾
Market Harborough	1/8½	1/4
Matlock	1/8	1/3½
Melton Constable	1/6	1/2
Melton Mowbray	1/8½	1/4
Merthyr	1/9½	1/4¾
Middlesbrough	1/9½	1/4¾
Middleton	1/9½	1/4¾
Middlewich	1/9	1/4¼
Milford Haven	1/8	1/3½
Morecambe	1/9½	1/4¾
Morley	1/9½	1/4¾
Mundesley	1/6½	1/2½
Nantwich	1/9	1/4¼
Nelson	1/9½	1/4¾
Newark-on-Trent	1/9	1/4¼
Newbury	1/7½	1/3¾
Newcastle-on-Tyne	1/9½	1/4¾
Newcastle-u.-Lyme	1/9½	1/4¾
New Forest	1/7½	1/3¾
Newmarket	1/9½	1/4¾
Newport, Mon.	1/7½	1/3¾
Newport Pagnell	1/9½	1/4¾
Northampton	1/9½	1/4¾
Norwich	1/9½	1/4¾
Nottingham	1/9½	1/4¾
Nuneaton	1/8	1/3½
Oakham	1/9½	1/4¾
Oldham	1/9½	1/4¾
Ormskirk	1/9	1/4¼
Oxford	1/8	1/3½
Oxted	1/9	1/4¼
Paignton	1/9	1/4¼
Peterborough	1/9½	1/4¾
Plymouth	1/9½	1/4¾
Pontefract	1/9½	1/4¾
Pontypridd	1/9½	1/4¾
Port Talbot	1/9	1/4¼
Portsmouth	1/9½	1/4¾
Preston	1/7½	1/3¾
Pulborough	1/7½	1/3¾
Ramsgate	1/9	1/4¼
Reading	1/9	1/4¼
Redditch	1/8	1/3½
Redhill	1/8	1/3½
Ripon	1/9½	1/4¾
Rochdale	1/8½	1/4
Rochester	1/9½	1/4¾
Rugby	1/9	1/4¼
St. Albans	1/9½	1/4¾
St. Helens	1/7	1/2¾
St. Neots	1/6½	1/2¾
Saffron Walden	1/7	1/2¾
Salisbury City	1/8½	1/4
Salisbury Plain	1/8	1/3½
Sawbridgeworth		
Saxmundham	1/6	1/2
Scarborough	1/9	1/4¼
Scunthorpe	1/9½	1/4¾
Selby	1/8	1/3½
Sevenoaks	1/7½	1/3¼
Sheerness	1/9½	1/4¾
Sheffield	1/9½	1/4¾
Shipley	1/9	1/4¼
Shoeburyness	1/8½	1/4
Shoreham	1/9	1/4¼
Shrewsbury	1/7½	1/3¼
Sittingbourne	1/8½	1/4
Skegness	1/8	1/3½
Sleaford	1/8½	1/4
Slough	1/9	1/4¼
Southampton	1/9	1/4¼
Southend-on-Sea	1/9½	1/4¾
Southport	1/9½	1/4¾
South Shields	1/7½	1/3¾
Spalding	1/9	1/4¼
Stafford	1/8½	1/4
Staines	1/8½	1/4
Stamford	1/8½	1/4
Stevenage	1/9½	1/4¾
Stockport	1/9½	1/4¾
Stockton-on-Tees	1/9½	1/4¾
Stoke-on-Trent	1/9½	1/4¾
Stourbridge	1/9	1/4¼
Stourport	1/6½	1/2½
Stowmarket	1/8½	1/4
Stratford-on-Avon	1/8½	1/4
Stroud	1/9½	1/4¾
Sunderland	1/9½	1/4¾
Sutton Coldfield	1/6	1/2
Swaffham	1/7½	1/3¼
Swanage	1/9½	1/4¾
Swansea	1/8	1/3½
Swindon	1/9	1/4¼
Tamworth	1/8	1/3½
Taunton	1/7½	1/3¼
Tenterden	1/9½	1/4¾
Thames Haven	1/7	1/2½
Thetford	1/9	1/4¼
Thorpe Bay	1/9½	1/4¾
Todmorden	1/8	1/3½
Tonbridge	1/9	1/4¼
Torquay	1/7½	1/3¼
Totnes	1/6½	1/2½
Trowbridge	1/7	1/2½
Truro	1/8	1/3½
Tunbridge Wells	1/8	1/3½
Uppingham	1/8	1/3½
Uttoxeter	1/9½	1/4¾
Wakefield	1/9½	1/4¾
Walsall	1/9½	1/4¾
Walsden	1/7½	1/3¼
Walton-on-Naze	1/9	1/4¼
Ware	1/6½	1/2½
Warminster	1/9½	1/4¾
Warrington	1/9½	1/4¾
Warwick	1/9	1/4¼
Wellingborough	1/8½	1/4
Welwyn	1/9½	1/4¾
Welwyn Gar. City	1/6	1/2
Wells (Norfolk)	1/9½	1/4¾
West Bromwich	1/9	1/4¼
Westcliff-on-Sea	1/8½	1/4
Weston-super-Mare	1/8½	1/4
Weybridge	1/7½	1/3¾
Weymouth	1/8½	1/4
Whitby	1/7½	1/3¾
Whitstable	1/9½	1/4¾
Widnes	1/9½	1/4¾
Wigan	1/8	1/3½
Wigton	1/9½	1/4¾
Willington	1/9½	1/4¾
Wilmslow	1/8	1/3½
Winchester	1/8	1/3½
Windermere	1/8½	1/4
Windsor	1/7	1/2½
Wisbech	1/7½	1/3¾
Witham	1/8	1/3½
Woking	1/7½	1/3¾
Wokingham	1/9½	1/4¾
Wolverhampton	1/7	1/2½
Woodbridge	1/9	1/4¼
Worcester	1/8	1/3½
Workington	1/9	1/4¾
Worksop	1/7½	1/3¾
Worthing	1/9	1/4¼
Wrexham	1/7	1/2½
Wroxham	1/8½	1/4
Wycombe	1/6½	1/2½
Wymondham	1/8	1/3½
Yeovil	1/9½	1/4¾
York		

* Painters 1d. less than other Craftsmen. † Plus 2d. per working day. ‡ Plasterers 1/11½

¶ Tradesman's Labourers, 1/5½. Navvies and General Labourers 1/4½.

§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

For Building Trade Wages in Scotland, see page 610.

PRICES CURRENT OF MATERIALS *

Note: Owing to the exceptional circumstances which prevail at the present time prices of materials should be confirmed by inquiry. The prices for soft woods are for cash on delivery, and are subject to adjustment when the increased price of £22 per standard for national released stocks is finally fixed.

At present linseed oil and genuine spirits of turpentine can only be supplied in cans in small quantities.

BRICKS, &c.

Delivered to site, City and Central Area, Full Lorry Loads. £ s. d.

	£ s. d.
Best Stocks	4 18 0
Second Hard Stocks	4 11 0

Per 1,000. Delivered at London Goods Stations.

2⅝ in. Phorpres. A discount of 6d. 1,000 only monthly account.	King's Cross Station per 1,000. s. d.	To sites in W.C. District. per 1,000 s. d.
Pressed	52 3	58 3
Keyed	54 3	60 3
Single Bullnose	72 3	78 3
Rustics	72 3	78 3
Whites	72 3	78 3

White Midhurst Facing Bricks (delivered London site)	£ s. d. 3 12 6
Best blue Pressed Staffs. (London Stns.)	8 18 0
Do. Bullnose (London Stns.)	9 8 0
Blue Wire Cuts (London Stns.)	7 15 6

Best Stourbridge Fire Brick (London Stns.):—

2½ in.	8 0 0	3 in.	9 15 0

GLAZED BRICKS. (London Stns.)

Best White Ivory and Salt Glazed Stretcher	26 0 0	D'ble Str'tch'rs	34 10 0
		D'ble Headers	31 10 0
Headers	25 10 0	One side & two ends	35 10 0
Quoins, Bullnose and 4½in. Flats	32 10 0	Two sides & one end	36 10 0
		Splays and Squints	34 0 0

Second Quality, £2 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

"PHORPRES" HOLLOW PARTITION BLOCKS.

2" per yd. sup.	2 3	3" per yd. sup.	2 9
2½" " "	2 6	4" " "	3 1

CLINKER CONCRETE.

2" per yd. sup.	1 6	3" per yd. sup.	2 0
2½" " "	1 8	4" " "	2 4

CRANHAM TERRA COTTA.

2" per yd. sup.	3 0	3" per yd. sup.	3 8
2½" " "	3 6	4" " "	4 7

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 6	12" x 9" x 3"	3 0
12" x 9" x 2½"	2 9	12" x 9" x 4"	3 9

Per yard super d/d. Free on site, London.

SAND.

Thames Ballast	7	9 per yd.	delivered 2 miles radius Paddington.
Pit Ballast	7	3 " "	
Pit Sand	9	9 " "	
Washed Sand	10	9 " "	
¾ in. Shingle	8	0 " "	
¾in. Broken Brick	12	0 " "	
Pan Breeze	8	3 " "	

CEMENT.

Best British Portland Cement. Standard Specification delivered London Area. £ s. d.

4 ton loads and upwards site, Per ton	2 4 6
1 ton to 4 tons site	2 7 6
Alongside Vauxhall in 80 ton lots	2 2 0
"Ferrocrete" Rapid Hardening Cement—	
4 ton loads and upwards site	2 10 6
1 ton to 4 tons site	2 13 6
Alongside Vauxhall in 80 ton lots	2 8 0

Stored in Reserved Bins at works. 1/6 per ton extra.

"Aquacrete" Water Repellent, "Blue Circle" cement, 30/- per ton extra or ordinary "Blue Circle" prices.

"Colorcrete" Nos. 1 and 2. Coloured Rapid Hardening Portland Cement 3 14 6

"Colorcrete" not rapid hardening, according to colour, from £7 to £15 10s. per ton.

"Snowcrete" White Portland Cement	9 5 0
Super Cement (Waterproof)	3 14 6

NOTE.—Paper bags will be charged at the rate of 5/- nett per ton. Jute sacks charged 1s. 9d. nett each and 1/6 nett each allowed if returned to works within two weeks, in good condition.

Carriage will be paid by makers on returned empty jute sacks.

Roman Cement	£7 5	Keene's Cement, White	£6 10 0
Parian Cement	6 10	" " Pink	6 5 0

Cementone Colours for cement according to tints per cwt. from £2 16s. 0d.

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	3 12 6	Sirapite, Coarse	4 3 0
" White	4 0 0	" Finish	4 11 0
Pioneer	4 3 0		

Above prices for 4-ton loads and over London Area.

Best Ground Blue Lias Lime	2 17 6	Grey Stone Lime	2 12 6
		Chalk Lime	2 12 6
Granite Chippings	1 10 0	Hair per cwt.	2 7 6

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d., if returned in good condition within three months, carriage paid.

Stourbridge Fireclay in sacks 37s. per ton at rly. dep.

STONE.

BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube s. d. 2 11½

BEER STONE—RANDOM BLOCK—

	s. d.
Free on rail at Seaton Station, per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. "	3 1½

Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.

PORTLAND STONE—

	s. d.
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 6
Do. do. delivered on road waggons as above stations, per ft. cube	4 6
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ¼d. beyond 30 ft.	

HOPTON-WOOD STONE—

F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over F.ft.cb.	14 0
Sawn two sides	22 6

HOPTON-WOOD STONE—

Sawn three or four sides	27 9

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station, London.

6 in. sawn two sides landings to sizes (under 30 ft. super) per ft.super	5 6
6 in. rubbed two sides, ditto "	6 3
3 in. sawn two sides slabs (random sizes) "	2 7
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) "	1 8½
1½ in. to 2 in., ditto "	1 4½

HARD YORK—

Delivered at any Goods Station, London.

Scrappled random blocks. per ft. cube	6 10
6 in. sawn two sides landings to sizes (under 40 ft. super) per ft.super	5 7½
6 in. rubbed two sides, ditto "	6 9
4 in. sawn two sides slabs (random sizes) "	3 5
3 in. ditto ditto "	2 8
2 in. self-faced random flags Per yd. super	8 9

CAST STONE.

Delivered in London are in full van loads, per ft. cube: Plain, 7s. 6d. Moulded, 8s. 6d. Sills, 10s. 0d.

HARD WOOD.

1 INCH AND UP THICK.

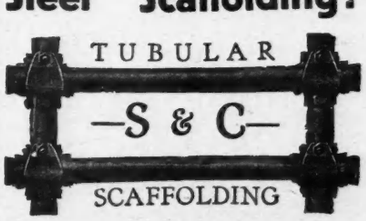
Average price for prime quality.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 17 0
Dry American and/or Japanese Figured Oak, per ft. cube 10 6 to	0 13 0
Dry American and/or Japanese plain Oak, per ft. cube	0 11 6
Dry sq. edged Honduras Mahogany, per ft. cube	0 15 0
Dry log-cut Honduras Mahogany, per ft. cube 12 6 to	0 16 0
Dry Cuba Mahogany, per ft. cube	0 18 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 6
Dry Australian Walnut, per ft. cube	0 19 0
Dry Queensland Silky Oak, per ft. cube	0 12 6
Dry African Mahogany, per ft. cube	0 10 0
Dry African Whitewood, per ft. cube	0 8 0
Dry English Wainscot Oak, per ft. cube	0 16 0
Best Scotch Glue, per cwt.	3 0 0
Liquid Glue, per cwt. 4 7 0 to	5 10 0

SOFT WOOD.

MERCHANTABLE BRITISH COLUMBIAN PINE.

	Minimum. £ s. d.	Maximum. £ s. d.
Scantlings in imported sizes, 2in. by 3in. to 4in. by 11in.	43 10 0	53 0 0

Having secured the Contract— What about the Steel Scaffolding?



For the lowest Prices apply to the Oldest Firm in The Scaffolding Trade.

STEPHENS & CARTER LTD.

The British Steel Scaffolding Co.

731-761, HARROW RD., N.W.10.

Telephone No. Ladbroke 1191 (6 lines).

PLANED BOARDS.

PRIME CLEAR BRITISH COLUMBIAN PINE.

	Per standard. £ s. d.
1in. by 11in. } 1in. by 9in. }	67 10 0

	Per square. s. d.
1in. plain edge flooring	53 0
1¼in. ditto	66 6
1in. tongued and grooved	53 0
1¼in. ditto	66 6

MATCHING.

	Per square. s. d.
⅝in.	37 6
¾in.	42 0
1in.	55 0

SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	34 17 6	18 by 10	19 5 0
22 by 12	29 0 0	18 by 9	17 15 0
22 by 11	26 15 0	16 by 10	16 17 6
20 by 12	26 2 6	16 by 8	13 10 0
20 by 10	24 0 0		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000

	f.o.r. London
Best machine-made tiles from Broseley or Staffordshire district	£4 10 0
Ditto hand-made ditto	5 7 6
Ornamental ditto	5 12 6
Hip and valley tiles (per dozen) Hand-made	0 9 0
Machine-made	0 8 6

METALS.

	£ s. d.
JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—R.S. Joists, cut and fitted	£22 10 0
Plain Compound Girders	25 0 0
" Stanchions	27 10 0
In Roof Work "	32 10 0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	22 5 0	⅝ in. to ½ in.	20 15 0
⅜ in.	21 5 0	⅝ in. to 2¾ in.	20 5 0

WROUGHT TUBES AND FITTINGS.

Deliveries from works.

Deliveries from London stock further 2½% gross.

	Tubes. ½"/6" %	Tubulars. ¾"/6" %	Fittings. 10/17 and 19/24 %	Flanges. ½"/2" %	Flanges. 2½"/6" %
Light weight	55½	—	48	51½	58
Heavy weight	48½	48½	40½	41½	50½
Galv.lightweight	44½	—	39½	40½	49½
Galv.heavyweight	35½	35½	31½	30½	41½

Tubes and tubulars sizes ½"/⅜" inclusive, charged extra of 5% less gross.

Fittings. Figs. 25/34 5% less gross discount.

Terms.—Nett cash end of month following date of invoice. Carriage paid on lots of £10 nett value and over.

C.I. HALF-ROUND GUTTERS—London Prices ex Works. per yd. in 6 ft. lengths.

	Gutters.	Nozzles.	Stop ends.
3 in.	1/4½	1/1	4d.
3½ in.	1/5½	1/2½	4d.
4 in.	1/5½	1/4½	6½d.
4½ in.	1/6½	1/8	7½d.
5 in.	1/10½	1/11½	8d.

O.G. GUTTERS.

3 in.	1/9	1/5½	4½d.
3½ in.	1/11½	1/5½	6d.
4 in.	1/11½	1/6½	7d.
4½ in.	2/0½	1/9½	8d.
5 in.	2/6	2/0½	9½d.

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe.	Bends.	Branches. Stock angles.
2 in.	2/0½	1/4½	2/0
2½ in.	2/1½	1/6½	2/4½
3 in.	2/7½	1/11½	2/10½
3½ in.	3/1	2/3½	3/4½
4 in.	3/6½	2/9½	4/0½

NETT PRICES.

Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES.—London Prices, ex Stock.

Per yd. in 6 fts.	Pipe.	Bends.	Branches.
2 in.	3/4½	2/4½	2/10½
2½ in.	4/0½	2/7½	3/7½
3 in.	4/4½	2/10½	4/3½
3½ in.	4/5½	3/7½	5/0½
4 in.	4/10	4/0½	5/9½

L.C.C. COATED DRAIN PIPE.

	Pipe.	Bends.	Branches.
3 in. per yd. in 9 fts.	5/5	6/3	9/11
cwt. qr. lbs.			
4 in. 1 1 20.	7/11	7/1	12/6
5 in. 1 2 22.	9/7	12/9	19/3
6 in. 2 0 6	11/5	14/8	25/6

Gaskin 65/- per cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(*contd*).

	Per ton basis in London. £ s. d.		£ s. d.
IRON.—Staffordshire Crown, Merchant quality	17 2 6	to	18 7 6
IRON.—Staffordshire Marked Bars	20 0 0	to	22 0 0
Mild Steel Bars	19 12 0	to	21 2 0
Mild Steel Hoops	21 6 0	to	21 16 0
	Ex Merchant's Stock, per ton (two-ton lots).		
Soft Steel Sheets, C.R. and C.A.—			
20 gauge	24 17 6	to	27 5 0
24 gauge	25 2 6	to	27 0 0
26 gauge	25 17 6	to	27 15 0
Galvanised Corrugated Sheets, 6 ft. to 9 ft.—			
20 gauge	27 1 3	to	28 6 3
24 gauge	27 11 3	to	28 16 3
26 gauge	28 16 3	to	30 11 3
Galvanised Flat Sheets, C.R. and C.A.—			
20 gauge	28 11 3	to	30 8 9
24 gauge	29 1 3	to	30 18 9
26 gauge	30 6 3	to	32 3 9
	Per ton. £ s. d.		£ s. d.
Cut Nails, 3 in. and up	26 0 0	to	27 10 0
	ALL NETT.		

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

Seamless copper tubes (basis)	per lb.	1/3
Strong sheet	„	1/6
Thin sheet	„	1/7
Copper nails	„	1/6
„ wire	„	1/6

PLUMBERS' BRASS WORK.

Delivered in London.
Stamped by Met. Water Board.

CRUTCH HEAD S.D. BIB COCKS FOR IRON. EASY CLEAN.

½ in.	¾ in.
34/-	53/- per doz.

CHROMIUM PLATED TOILET S.D. BIB COCKS FOR IRON. EASY CLEAN.

½ in.	¾ in.
50/-	68/- per doz.

S.D. STOP COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
37/6	53/-	87/-	202/-	288/-	460/- per doz.

S.D.S. COCKS WITH TWO UNIONS FOR LEAD.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
47/-	75/6	120/-	226/-	360/-	588/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
8/10	9/9	15/9	27/3	44/-	63/6 per doz.

HEAVY CROYDON BALL VALVES. SCREW IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
45/-	73/-	120/-	204/-	260/- per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
10/6	12/9	19/3	34/-	48/-	53/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
9/9	12/6	22/6	33/-	42/- per doz.

DRAWN LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1½ in.	1½ in.	2 in.	3 in.	
6 lb. Lead P...	29/-	38/-	54/-	93/-	per doz.
8 lb. Lead S...	36/-	42/-	67/-	120/-	„

SOLDER.—Plumbers, 1/5. Tinmen's, 1/8. Blow pipe, 1/10 per lb.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil, in drums	per gallon	0 5 4
Boiled „ „ in drums	„	0 5 7
Turpentine, in drums (10 gals.)	„	0 5 3
Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks).		61 0 0
Extra for 1-cwt. kegs over 5-cwt. casks is 2/9 cwt.		
GENUINE WHITE LEAD PAINT "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J" Brand, and other best brands (in 14 lb. tins) not less than 5-cwt. lots per ton delivered		83 10 0
Red Lead. Dry (packages extra)	per ton	52 0 0
Best Linseed Oil Putty (1 ton lots)	per cwt.	0 17 1½
Size. XD quality	fkn.	0 3 6

Turpentine substitute can be obtained and prices vary according to the quality from 2/9 gallon upwards.

VARNISHES, &c.

		Per gallon.
Oak Varnish	Outside	0 14 0
Fine do.	„	0 16 0
Fine Copal	„	0 18 0
Pale Copal	„	1 0 0
Pale Opal Carriage	„	1 4 0
Best do.	„	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	„	0 18 0
Fine Copal Cabinet	„	1 2 0
Fine Copal Flatting	„	1 0 0
Hard Drying Oak	„	0 18 0
Fine Hard Drying Oak	„	0 19 6
Fine Copal Varnish	„	1 0 6
Pale do.	„	1 12 0
Best do.	„	1 2 6
Best Japan Gold Size		1 12 6
Best Black Japan		0 10 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 0
Knotting (patent)		0 15 0
French and Brush Polish		0 12 0
Liquid Dryers in Terebene		0 9 0
Cuirass Black Enamel		0 7 0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

ORDINARY GLAZING QUALITY (O.Q.) AND SELECTED GLAZING QUALITY (S.Q.).

PER FOOT SUPER.

In sizes not exceeding 80 in. long or 48 in. wide or 110 united inches.

	O.Q.	S.Q.
18 oz. in 300 ft. cases	2½d.	2¾d.
24 oz. „ 200 ft. „	3½d.	4d.
26 oz. „ 200 ft. „	3¾d.	4¼d.
32 oz. „ 200 ft. „	5¼d.	6¼d.
24 oz. „ 300 ft. „	3¼d.	3¾d.
26 oz. „ 300 ft. „	3¾d.	4¼d.
32 oz. „ 300 ft. „	5¼d.	6¼d.
18 oz. Obscured Sheet		5¼d.
24 oz. Obscured Sheet		6¼d.
Fluted, 21 oz.		9d.
Enamelled, 18 oz.		5¼d.
„ 24 oz.		6¼d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

	Per ft.
Rolled plate, ¼ in.	5¼d.
Rough cast double rolled, ⅜ in.	6¼d.
Rough cast double rolled, ½ in.	6¼d.
Figured rolled, and Cathedral, white	6¼d.
Figured rolled and Cathedral, tinted	9¼d.
Rolled Sheet	6d.
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick	0 10½

Rolled plate is the same price as rough cast double rolled.

	Per ft. s. d.
Wire Rolled, ¼ in. thick	0 9½
Wired Cast, ¼ in. thick	0 9½
Georgian Wired Cast	0 10
"Calorex" Sheet, 21 oz.	2 6
„ „ 32 oz.	4 0
„ Cast, ¼ in. thick	0 10
„ „ ⅜ in. thick	1 0
„ „ ½ in. thick	1 2
Non Actinic Glass, ¼ in. thick	0 9½
„ „ „ ⅜ in. thick	1 0
„ „ „ ½ in. thick	1 2

"VITA" GLASS.

	Per ft. s. d.
"Vita" Plate Glass, about 1/12 thick: To 7 ft. super	5 0
Over 7 ft. super	7 6
"Vita" Sheet Glass, about 18/20 oz.	2 0
Cathedral "Vita" Glass: ¼" thickness	2 0
5/16" „	3 0
3/16" Georgian Wired "Vita" Glass	3 6

LEAD, &c.

(Delivered in London.)	Per ton. £ s. d.
LEAD.—Sheet, English, 4 lb. and up	34 10 0
Pipe in coils	34 0 0
Soil pipe	39 10 0
Compo pipe	41 5 0

NOTE.—Country delivery, 20/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills ..... per ton £18 0 0.

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from October 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A¹	A²	A³	B	B¹
Craftsmen	1/10	1/9½	1/9	1/8½	1/8	1/7½
Labourers	1/4½	1/4½	1/3½	1/3½	1/3	1/2½

Aberdeen	A	Dumfriesshire	A²	Inverness	*	Perthshire	A²
Ayrshire	A	Dundee	A	Inverurie	A¹	Peterhead	A¹
Banff	B	Dunoon	A	Kincardineshire	A²	Renfrewshire	A
Berwickshire	A²	East Fife	A	Kinross-shire	A	Rothesay	A
Bridge of Allan	A	East Lothian	A	Lanarkshire	A	Roxburghshire	A²
Broughty Ferry	A	Edinburgh	A	Midlothian	A	St. Andrews	A
Clackmannanshire	A	Fifeshire	A	Monifieth	A	Selkirkshire	A²
Doune	A	Forfarshire	A²	Moray and Nairn	B	Stewartry	A²
Dunblane	A	Glasgow	A	Newport	A	Stirlingshire	A
Dumbartonshire	A	Greenock	A	Peeblesshire	A²	Stornoway	A²
Dumfries	A¹	Hamilton	A	Perth	A	Tayport	A
						West Lothian	A

* This town has its own rates: Masons, 1/8; Carpenters, 1/6; Slaters, 1/6; Plumbers, 1/8½; Plasterers, 1/9, but 1/9½ is paid owing to the scarcity at present; Painters, 1/8 and Labourers, 1/3½.

The information given in this table is copyright. Rates of wages in England and Wales are given on page 608.

Foundation Specialists

EXPERIENCED SERVICE AND TECHNICAL ADVICE ON ALL FOUNDATION PROBLEMS

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PILING & CONSTRUCTION COMPANY LIMITED

45, WORCESTER RD., SUTTON, SURREY
TELEPHONE: VIGILANT 0081/2
WORKS: THICKET CRESCENT, SUTTON

S 35-56

THE SCOTTISH BUILDER

GLASGOW.—BUILDINGS.—Plans have been prepared and approved for the erection of a new garage. Plans by Mr. Thomas Somers, City Architect, Office of Public Works.

GLASGOW.—CINEMA.—Plans approved for alterations and additions to the Botanic Garden Picture House Co., Ltd.'s, cinema. Messrs. Burnet & Boston, architects, 180, Hope-st., Blythswood.

NEW BUILDING IN LONDON

PADDINGTON.—REPAIRS.—The B.C. are to make repairs to their baths. Mr. H. A. Thomerson is the supervising architect.

Christmas Day and Boxing Day Wages.

We are notified by the National Joint Council for the Building Industry that double time will be paid for Christmas Day and Boxing Day and time-and-a-half on Boxing Day for uniformity jobs.

Economy in the Use of Cement.

The leaflet on this subject mentioned in our issue for December 6 is obtainable, free of charge, on application to the Building Research Station, Garston, near Watford. It is not issued by the Stationery Office.

Registration and Irish Builders.

At the November meeting of the Council of the Federation of Builders, Contractors and Allied Employers of Ireland, the Council gave preliminary consideration to the draft of a Bill to provide for the registration of builders and contractors. It was decided to confer with other associations of employers concerning industrial legislation.

CURRENT AND PROPOSED BUILDING WORK*

Accrington.—Tenders invited by Housing Committee for external painting of 200 Corporation houses.

Bacup.—T.C. approved plans: Dairy and store, R. Temperley, 2, Sunny Bank, Todmorden-rd.

Batley.—T.C. approved: Works, A. J. Riley and Co., Ltd.; cottages, Fred Blackburn; alterations to milis, G. Hirst and Sons.

Burnley.—T.C. propose erection of weights and measures offices. Plans by J. L. Beckett, B.S.

Chorley.—Board of Management of Chorley and District Hospital propose additions.

Cleckheaton.—Spenborough U.D.C. propose extensions to abattoir. Plans by J. Wallbank, E. and S.

Doncaster.—Board of Management of Royal Infirmary decided to complete new nurses' home. Pite, Son and Fairweather, architects, 12, Carteret-st., London, S.W.1.

Dunston-on-Tyne.—Cackett, Burns Dick and Mackellar, Ellison-pl., Newcastle, architects for store and warehouse for North-Eastern Trading Estate, Ltd.—Extensions to be made to factory of Jayes's Clothing Co., Newcombe and Newcombe, Eldon-sq., Newcastle, architects.

Felling-on-Tyne.—Site being sought for proposed Sunday school. Architect, R. Wylie, 51, Grainger-st., Newcastle-on-Tyne. —E. Hind (South Bank), Ltd., South Bank, Middlesbrough, to erect premises.

Gallt-y-Sil.—Caernarvonshire C.C. propose extensions to isolation hospital. W. Ll. Jones (F.), County Architect, Caernarvon.

Gateshead.—Clarke Chapman and Co., Ltd., extend condenser house.—Hetherington and Wilson, County-chams., Westgate-rd., Newcastle, architects for improvements to "Prince Albert Inn" for Ridley, Cutter and Firth.

Halifax.—T.C. seeking permission to proceed with 54 houses.

Hendon.—B.S. instructed to arrange for painting work to be carried out forthwith at a council school.

Hinckley. — U.D.C. approved plans: Rebuilding boiler house, L. Grewcock and Co., Ltd., Stockwell Head-hill; alterations to premises, Atkins Bros. (Hinckley), Ltd.

Longendale. — Housing Committee approved plans of extensions of works for W. Hey and Sons.

Manchester.—T.C. approved spotters' post to works, Crossley Bros., Ltd. T. A. Fitton, architect, 19, Chapel-walks; conveniences to factory, Mariborough Mills, Ltd. A McDonald, architect, 70, Newport-rd., Chorlton-cum-Hardy; additions to "Cricketers' Rest," Groves and Whitnall, Ltd., Regent-rd. Brewery, Salford; business premises, Cable and Wireless, Ltd., Electro House, London, W.C.2; additions to "White Lion" inn, J. Tetley and Sons, Ltd., brewers, Leeds. Brameld and Smith, architects, County-bldgs., Cannon-st.; additions to "Swan" inn, Walker and Homfray, Ltd., Woodside Brewery, Eccles New-rd., Salford, 5; additions to offices, Thomas French and Sons, Ltd. H. S. Fairhurst and Son, architects, 55, Brown-st.; rebuilding "Three Tuns" hotel, Threlfall's Brewery Co., Ltd., Cook-st., Salford. B. Waterhouse (L.), architect, 134, Deansgate.

Market Bosworth.—Leicestershire C.C. propose alterations to institution laundry. W. Keay (F.), County Architect, 6, Millstone-la., Leicester.

Newcastle-upon-Tyne.—Hetherington and Wilson County-chams., are architects for works for G. Angus and Co., Walker-rd.—W. B. Reid and Co., Ltd., brewers, to build new offices. Architects, Hetherington and Wilson.—Newcombe and Newcombe, Eldon-sq., architects for store warehouse for Parker, Ltd., of Welbeck-rd.—Carricks, Ltd., to build loading shed. Plans by G. R. Holmes, 1, Priors-ter., Tynemouth.—North East Electric Supply Co., Ltd., to build substation. Merz and McLellan, Carliol House, engineers.

Ormskirk.—U.D.C. propose improvements to fire brigade station. Plans by E. J. Wright, S.

Stoke-on-Trent.—T.C. approved: Rebuilding nurses' home for North Staffordshire Royal Infirmary. Wood and Goldstraw, architects, Victoria-chambs., Station-rd., Tunstall.

Sunderland.—Finance Committee approved spending of £116 on installation of underground water tank.

* See also List of Contracts Open.

IN PARLIAMENT

Post-War Town Planning.

SIR F. SANDERSON asked the Parliamentary Secretary to the Ministry of Works and Buildings whether he would consider putting into preparation a scheme for the post-war planning of London and other urban areas damaged by enemy action, and appointing immediately an advisory committee to confer with the authorities concerned, to submit recommendations as to the lines upon which post-war planning should be carried out, and any amendment of the law which might be necessary to secure a simplified and more direct procedure for the replanning, where necessary, of damaged areas.

MR. HICKS said he would refer the honourable Member to the last paragraph of the statement which the Lord Privy Seal made on October 24 in regard to the functions of the Ministry of Works and Buildings, when he stated that it was clear that the reconstruction of town and country after the war raised great problems and gave a great opportunity; the Minister of Works and Buildings had, therefore, been charged by the Government with the responsibility of consulting the Departments and organisations concerned with a view to reporting to the Cabinet the appropriate methods and machinery for dealing with the issues involved, and he felt that any steps of the kind suggested had better await the report, which he hoped to complete in the near future.

Cement Supplies.

MR. A. EDWARDS asked the Parliamentary Secretary to the Ministry of Works and Buildings if there was now an adequate supply of cement available for all purposes; and why there was difficulty in obtaining local supplies.

MR. G. HICKS said that the Minister had, since his appointment, had under active consideration the problems connected with the production, supply and distribution of cement, and these problems were still under investigation. For this purpose, he had appointed a Controller. There had been difficulties of supply occasioned by the demands for war construction work and more especially for coastal defence works and air raid shelters. But, owing mainly to the reduced consumption under winter conditions, the position was now easier. Local difficulties which were being experienced were being investigated and dealt with as quickly as possible.

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TENDERS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Tuesday morning.

Tenders for A.R.P. work will be found under "A.R.P. Schemes."

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

Bakewell.—Extension of sewer, for R.D.C. R. Hayhurst, S. :—*J. H. Cartledge, Baslow, Bakewell.

Blackpool.—Hall and canteen, for Y.M.C.A. (Lancashire Division), 83, Bridge-st., Manchester. Hubert A. Thomas, A.R.I.B.A., architect, 36, Dale-st., Liverpool :—*H. & J. R. Bradshaw, Hill-lane, Blackley, Manchester.

Bridgnorth.—Bungalow at pumping station, for T.C. I. M. Nicholson, B.E. and S. :—*Horne and Meredith, Whitburn-street, Bridgnorth.

Croydon.—Works, for C.B. Temporary improvement in heating and hot water arrangements at Queen's-rd. homes :—*Croydon Gas Co., £746 2s.; alterations and additions to basement, to adapt it for use in connection with the Ministry of Labour and National Service Training Scheme :—*R. Mansell, Ltd., £477 10s.

Doncaster.—Extensions to fire station, for T.C. R. E. Ford, estate surveyor, 3, Priory-pl. :—*P. P. Taylor (Doncaster), Ltd., 6, South-parade, Doncaster, £734 4s.

Glasgow.—Storage buildings, for James Spencer & Co., 135, Finnieston-st. James Morrison, architect, 3, Charles-st., Springburn-rd. :—Excavation, brick and mason—*Cowieson, Ltd., Glasgow.

Greenock.—Extensions, for Barr & Co. Will J. B. Wright and Kirkwood, architects, Carlton House, Blythswood-sq., Glasgow. A. Wilson and Fyfe, quantity surveyors, Library-bldgs., Wallace-sq., Greenock :—Excavation, brick and building—*J. & R. Kirk, Ltd., Greenock; steel construction—*Brownlie & Co., Ltd., Glasgow; joinery, carpentry and ironmongery — *J. Agnew & Sons, Ltd., Greenock; plumber work and sanitary engineering, etc.—*Clark & Selkirk, Greenock; electrical fittings and installation—*W. B. McCubbin, Greenock.

Lanarkshire.—Houses, etc., for C.C. S. McColl, Lanarkshire County Housing Architect, Hamilton :—Excavation, brick and building—*Bryce & Symington, Ltd., Lanark, £3,111 0s. 5½d.; joinery, carpentry and ironmongery—*Gilchrists (Lesmahagow), Ltd., Lesmahagow, £663 12s. 0½d.; plumber and sanitary engineering — *T. Glaister & Co., Lanark, £467 19s. 3d.; slater work and roughcasting—*MacCartney & Reid, Ltd., Motherwell-Wishaw, £437 10s. 3d.; plaster, lathing —*J. Bertram & Son, Motherwell-Wishaw, £270 8s. 10d.; painting—*G. Law & Sons, Bellshill, £132 7s. 6d.

¶London (Air Ministry).—Contracts placed to the value of £500 or over for the week ended December 7 :—

Air filtration work, G. N. Haden and Sons, Ltd., London; Comyn, Ching and Co., Ltd., London; and Hope's Heating and Lighting, Ltd., London.

Heating work, Colley, Meikle and Co., Ltd., London.

Public address installations, Tannoy Products (Guy R. Fountain, Ltd.), London.

General maintenance work, Jas. Laidlaw and Sons, Ltd., Glasgow.

Civil engineering work, Thos. Swan and Co., Ltd., Chorley Wood; and Tarmac, Ltd., Wolverhampton.

Building work, Nox, Ltd., London.

Building and civil engineering work, Sir Alfred McAlpine and Son, Ltd., Liverpool.

D

General maintenance work, G. J. Furneaux, Christchurch.

Heating work, Brightside Foundry and Engineering Co., Ltd., Birmingham.

Hutting work, Car Cruiser Caravans, Ltd., Hayes, Middlesex.

London (War Dept.).—Contracts placed for week ended Dec. 7 :—

Building work—F. Rendell & Sons, Ltd., 11/12, St. John-st., Devizes; W. A. Sherratt, Ltd., Beaumont-rd., Church Stretton, Dougall & Co., Ltd., Glasgow-rd., Dumbarton; Burnand & Pickett, Ltd., 14, Woodcote-rd., Wallington; Wm. Birch & Son, Ltd., Spen-ln., York; A. D. Jackson & Son, 7, Bournemouth Park-rd., Southend-on-Sea; Stedman Bros., New North Works, New North-rd., Barkingside; F. Hutton & Sons, Ltd., Birch, Colchester.

Hutting (erection)—T. H. Nicholls, 67, High-st., Walsall Wood, nr. Walsall; P. J. Walls & Bros., Saintfield-rd., Belfast; J. & R. W. Taggart, 22/30, Hopefield-ave., Belfast; Donegall Building Works, 396, Donegall-rd., Belfast.

Hutments—J. Parkinson & Sons, Parliament-st., Lancaster, and James Carmichael, Lochgilphead, Argyllshire.

Hutting (erection)—P. J. Walls & Bros., Saintfield-rd., Belfast; H. Laverty & Sons (Belfast), Ltd., 12/14, Cambridge-st., Belfast (2 contracts); Isaac Copeland & Sons, Lower Windsor-ave., Belfast; Courtney & Co., Shaftesbury-ave., Ormeau-rd., Belfast (2 contracts); James Moreland, 39, Powerscourt-st., Belfast (2 contracts); and Wm. Dowling, Ltd., 106/108, Cromwell-rd., Belfast.

Miscellaneous works—C. T. Corps, Ltd., The Reliance Building Works, Walnut Tree-close, Guildford; Braithwaite & Co., Ltd., (Engineers), Horseferry-rd., London, S.W.1; W. H. Adams & Sons, Ltd., 35a, Regent-st., Rugby; J. R. Surtees, Ltd., Benfieldside, Blackhill, Co. Durham; W. S. Try, Ltd., Cowley, nr. Uxbridge, Middlesex; and P. Fitzpatrick, Mountpanther, Clough, Co. Down (2 contracts).

London.—Main drainage and air raid precautions at depot at Islington, for L.C.C. :—

Albert Monk, N.9	£5,900
F. Troy and Co., Ltd., N.W.3 ...	5,478
A. Roberts and Co., Ltd., W.8 ...	5,370
Commercial Structures, Ltd., E.10 ...	5,099
*Callow and Wright, Ltd., 207, Brondesbury-park, N.W.2 ...	5,050

Architect's estimate, £5,200.

Lunesdale.—Laying of 3-in. and 4-in. asbestos cement water mains, construction of booster pumphouse, and other incidental works, in three parishes, for R.D.C. D. H. Moore, B.Sc., A.M.Inst.C.E. :—

F. Parkinson and Son, Blackpool	£8,480	0	0
W. V. Patrick, Grassington...	5,556	3	9
F. Pilkington, Harrogate ...	5,477	11	1
G. H. Graham, Huddersfield ...	5,433	7	2
T. Coates, Bury	5,275	6	9
West Heath (Contractors), Ltd., Stafford	5,191	11	7
T. Cowgill and Son, Bentham...	5,046	1	8
*J. W. Mashiter, Old Post Office, Caton, Lancaster ...	5,017	9	9

Macclesfield.—Further air raid shelters at 12 elementary schools, for T.C. Max Tetlow, A.R.I.B.A., Borough Architect :—*B. Cooke, £497 19s. 2d.; *H. Berry and Son, £186 4s.; *W. Brough, £133 6s.; *Young and Co., £464 1s.; *Cooper Bros., £222 9s.; *Cooper Bros., £143 6s.; *H. Hall, £128 6s.; *J. Clayton, Ltd., £296 12s.; *Chadwick Bros., £845 14s. 5d.; *Allen and Hudson, £199 0s. 3d.; *G. Roylance and Co., £769 16s.; *Cooper Bros., £529 4s.; *J. Knight, £207 9s. (All of Macclesfield.)

Middleton.—Interior painting of (a) St. Gabriel's C.E. schools, (b) All Saints' C.E. schools and Rhodes Council schools, for E.C. J. Pollard (L.), Borough Architect :—(a) *N. F. Hawtin, 270a, Oldham-rd., Middleton, £167; (b) *F. & J. Pilling Bros., Ltd., Birch-ln., Longsight, Manchester, £140 and £184.

Newcastle-upon-Tyne.—Sub-station, for the Northern Re-Diffusion Co. :—*J. R. Rutherford and Sons, Minories Joinery wks., Jesmond, Newcastle.

Northwich.—Works for R.D.C. J. Birtwistle, E., Whitehall, Hartford, Northwich. Brick borehole pump-house at Delamere and laying of various mains :—

C. A. Horton, Ltd., Brierley Hill, Staffs	£12,245	11	3
Hadsphaltic Construction Co., Salop	12,180	8	9
Wm. Wilson (Newcastle), Ltd. Newcastle-on-Tyne ...	10,493	15	6
Thomas Coates, Bury ...	9,714	8	5
R. and J. Bradley, Ashton-in-Makerfield	7,709	16	0
West Heath (Contractors), Ltd., Stafford	6,563	18	7
Roads and Sewers, Ltd., Slough	6,310	5	0
C. Dew and Co., Ltd., Oldham	6,020	0	0
*S. Hutton and Co., Ltd., Northwich ... (main laying)	5,725	17	0
W. Mulcaster and Co., Crewe	5,491	4	6
W. E. Noden and Co., Ltd., Winsford	2,204	16	6
*Exors. S. Appleton, Northwich ... ... (pump house)	1,848	17	7

Ironwork and Fittings :—

Geo. Kent, Ltd., Luton	£1,296	0	
Henfield and Kennedy, Kilmarnock	965	0	
*Electroflo Meters, Ltd., London ...	759	0	
*Blakeborough and Sons, Brighouse	669	18	

Spun Iron Pipes, etc. :—

Cochranes (Middlesbro'), Ltd., Middlesbrough	£9,178	16	11
Stanton Ironworks Co., Ltd., Nottingham	9,178	16	11
*Staveley Coal and Iron Co., Chesterfield	9,178	16	11

Asbestos Pipes :—

*Turner's Asbestos Cement Co., Ltd., Manchester	£1,997	12	7

Fittings :—

Glenfield and Kennedy, Kilmarnock	£209	12	0
*J. Blakeborough and Sons, Brighouse	195	9	9
Ham, Baker and Co., Ltd., London	156	18	0

Wandsworth.—B.C. has accepted (subject to samples) following tenders for bricks (per 1,000) :—(a) 500,000 Godstone common dressed bricks; (b) 1,000,000 A.B. multi-stocks; (c) 250,000 Charlwood bricks—(a) *W. T. Lamb & Co., 81s. 6d.; (b) A. W. T. Richardson, 92s. 6d. (delivered); (c) *Hall & Co., 100s. (delivered).

West Kirby.—Social hall and canteen, for Y.M.C.A., 83, Bridge-st., Manchester, 3. Hubert A. Thomas, architect, Prudential-bldgs., 36, Dale-st., Liverpool :—*H. & J. R. Bradshaw, Hill-ln., Blackley, Manchester.

TRADE NEWS

"A New Glass Substitute."

In a note on a new glass substitute, "Luxoid," in our issue of December 6, it was stated that this material could be used in widths up to 24 ft. While "Luxoid" has some remarkably interesting merits, we trust our readers will have refused to credit it with superhuman qualities and will have recognised in our earlier statement a printer's error for 24 in. Details of this "flexible glass" are obtainable from Messrs. James Clark and Eaton, Ltd., at Scoresby House, Blackfriars, S.E.1.

New Pocket Manual for the Home Guard.

Members of the Home Guard, keen to attain proficiency in the limited time at their disposal, will welcome the "Home Guard Manual," compiled by Ex Warrant-Officer Instructor A. Southworth, R.S.M., Sevenoaks Batt. Home Guard. This Manual will be welcome because it gives essential points and deals with the various subjects in their order of priority. It covers Welfare and Field Training, Foot and Rifle Drill, the 1914 Pattern Rifle, Squad, Platoon and Company Drill, Field Signals, Section Formations, Visual Training, Judging Distances, Range Practice, Scouts, Fieldcraft, how to construct Road Blocks and so on. There are some remarkable photographs and Brigadier J. S. Davenport has written the foreword. The price is 6d., post free, and copies are obtainable from the Ruberoid Co., Ltd., Meadow Mills, Stonehouse, Stroud, Glos.

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